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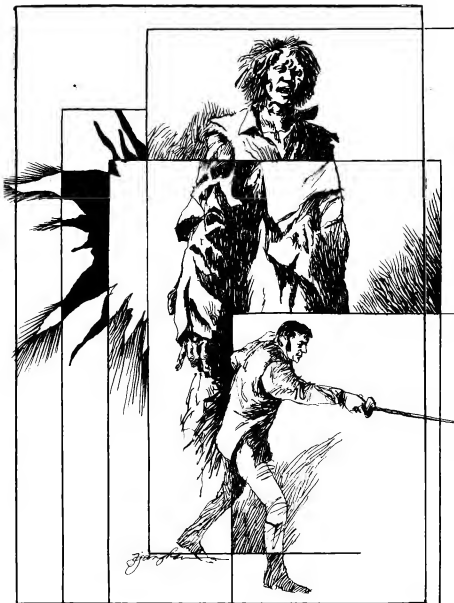
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*Otto McGavin suffered from
a personality problem—but
if he solved it he would die!*

THE ONLY WAR WE'VE GOT

JOE HALDEMAN

I



OTTO MCGAVIN was a reasonably competent and extremely lucky "prime operator." He wasn't as deadly with a gun as James Borcroft had been or as handy with the blade as Petri Stalofam—he didn't pick up a personality overlay as quickly as Bert Schauer and Susana Leeds could have learned four exotic languages in the time it took Otto to master Portuguese.

But James and Petri and Bert and Susana had all died in the line of duty in the past year, three of them violently, while one chose the

pleasant lingering death of happy-plant overdose. Otto McGavin, we note, was lucky and was still alive.

He looked barely alive, though, and about as luckless as possible, as an aide, helped him out of the TBII Personality Overlay section. He shuffled, stooped over, leaning on a weathered stick, the rustling of noisome rags an unpleasant counterpoint to his adenoidal panting. His nose looked—was—freshly broken and his face and arms were covered with running sores. The aide managed without touching him to guide him through a door marked: BRIEFING AND DEBRIEFING—J. ELLIS, PH.D.

Inside the office the aide parked him on a straight-backed chair facing a nervous young man who sat in a government-gray chair behind a government-gray desk. The aide left quickly, as soon as he was sure that his charge wasn't going to fall out of the chair.

"C-cashew," the young government man stuttered. "Battery. Rouge. P-pulpy."

A light glimmered behind the rheum in Otto's eyes and he levered himself out of the chair, staggered and almost fell. "What—" He touched his face, winced and stared at the sticky dampness on his fingers. He dropped back into the chair.

"Now this time, this time it's gone too far." He plucked at the rags and a fragment came away between his fingers. "Exactly who am

I supposed to be this time—the Ancient Mariner? The Wandering Jew? Or just a garden-variety leper?"

"Now, Colonel McGavin, I assure you, uh—"

"Assure me and be damned! This is three times in a row—three times I've been some weak old codger. Somebody in Planning must want me dead!"

"No, not at all—that's not it at all." He shuffled some papers at his desk, not looking at Otto. "You have a good, uh, extremely good record of success—under severe PO handicap, especially—"

"So think of how much better I could do if you clowns would let me be a normal human being for a change!" He grasped his ragged left arm, almost able to encircle bicep and triceps with one bony hand. "'PO handicap.' If you'd kept me under for another week you'd have handicapped me into the grave."

"You know it's only, uh, temporary—"

"Temporary! Young man—"

"Dr. Ellis," the other said mildly.

"Young *Doctor*—it might only take me a couple of weeks of starving in a null-g field to lose all this muscle, but I've got to get it back the old-fashioned way. Even with hypnosis—"

"No, Colonel, it *is* temporary—I mean—"

"What *do* you mean?"

"Well, you're expected to—recover while on the assignment. Your persona is that of a, well, you might say a professional athlete."

"Yeah, the hundred-meter crutch relay, I can—"

"But no—no, you don't see, he's been—" Ellis shuffled papers some more. "If we can get on with the briefing I'll—"

"All right, all right. Nobody ever lets me bitch. What am I going to infiltrate—a hospital? A health spa?"

"Oh, no. Neither. First a police station. The individual you're impersonating is in jail, awaiting sent—"

"For dripping on somebody, no doubt."

"Uh—no. For murder. Premeditated first-degree murder. Assassination, actually."

"Hey, that's really fine. A new experience. Brain-wipe."

"Uh, well, you won't be on Earth, you see—"

"I think I get the picture."

"On Selva they punish murderers either by burning at the stake or public cas—"

"I don't want to hear it. I don't want to *do* it."

"You have no choice, of course."

"Ah, but I do," Otto said, tensing. "All I have to do is kill you before you can—"

"PULPY—rouge—battery—cashew!" Dr. Ellis shouted. Otto slumped in the chair, face

slack. Dr. Ellis sighed and blotted his forehead, got up and rummaged in a file until he found a holstered laser. He beat the dust off it, sat down again, drew out the gun and pointed it at the center of Otto's chest. "Cashew. Battery. Rouge. Pulp." "

Otto shook his head to clear it and looked down the barrel of the weapon. Quietly: "Put that goddamn thing away before you electrocute yourself. The battery selector's on 'charge.'"

No ten-year-old would fall for that, but Dr. Ellis had evidently spent his youth in the pursuit of scholarship. He reversed the weapon to look at the power matrix, holding it very gingerly. Otto smacked it out of his hand and, not moving too swiftly, picked it up off the rug.

"Pulpy, uh—"

"No." Otto had the weapon shoulder-high, the muzzle of it wavering a meter from the man's nose. "Calm down."

He went back to his chair, keeping the doctor covered, and sat. He shook his head.

"You bureaucrats are really max. Really max. Can't take a joke." He tossed the gun to the doctor's desk but didn't quite make it. It clattered against the edge and went spinning to the floor.

"That's government property," Ellis said.

"So am I, damn it." Otto leaned back and started when a joint

popped loudly. "So am I." He studied the doctor for a few silent seconds. "Go on. I'm this murderer—"

"Ah. Yes." Ellis relaxed, lacing his fingers together. "But let's not get ahead of ourselves. We have a problem on Selva."

"I gathered."

"Um, yes, it's a problem, on the level you're operating, it's a problem of murder. Of systematic assassination, really."

"So I'm an assassin."

"In a—manner of speaking. But the problem is much larger than that."

"I should hope."

"Yes, well, it's war."

"So? Nothing in the Charter—"

"Interplanetary war."

Otto leaned forward, smiling slightly. "Interplanetary war? You're pulling my fern. Nobody—"

"I know." He sighed. "We're getting ahead of ourselves again."

"Begin at the beginning, then."

"I was going to say, yes. Do you know anything about Selvan politics?"

"Look, I can't keep up with every jerkwater—"

"All right. That's what I thought. Don't worry, your persona knows all it has—"

"Of course. Go on."

"**W**ELL, Selva is classified as an hereditary-representative oligarchy."

"Like you say, I'll know all of this."

"Patience, please. There are forty-two hereditary clans who send one representative apiece to an inter-clan ruling council, the *Senado Grande*. This representative is the eldest son of the head of the clan. He will eventually head up the clan himself and send *his* son to the *Senado*."

"Just a puppet for the old man, I assume."

"Generally, yes. In practice, the *Senado* serves as a training ground, preparing the young men for the more difficult job waiting for them when their fathers die or step down. Selva doesn't have a strong central government; hasn't had one for centuries, and the Senado just formalizes into law agreements made between the various clan heads in secret meetings."

"Very advanced."

"Well, it works. They started out neo-Maoist—anyhow, here's the problem:

"On Selva, serious personal differences between adult males are generally settled by dueling—"

"Dueling!"

"Yes, it's a delightful planet. Usually they duel with swords, sometimes with more exotic weapons. The outcome of the duel usually is just a wounding—first blood wins the argument—but over serious matters they sometimes duel to the death."

"I haven't handled a sword since

training! That's fifteen years—"

"That long? Well, don't worry, your persona is quite expert. The boy he murdered he murdered with—"

"Boy? The boy he murdered?"

"He was sixteen, just a few days past his sixteenth birthday. That's the legal age limit for duels. Which is at the bottom of your assignment. Let me explain. The man behind this interplanetary war idea is a clan head named Alvarez. He wants to attack Grunwelt—"

"Oh, I've heard of—"

"Yes, Grunwelt is a comparatively prosperous world. Unlike Selva, it has stayed in the mainstream of Confederation life. And they're practically next-door neighbors. They come as close as sixty million kilometers, at opposition."

"What do they want to start a war for? Haven't they ever heard of—"

"October? Sure, they've heard of October. In their schools, they teach that it's a myth, that the Confederation is too spineless ever to—"

"Still, why an interplanetary war?"

ELLIS shrugged. "This man Alvarez—well, for generations Selvans have been jealous of Grunwelt. Alvarez is playing on this jealousy. Reduced to the simplest of terms, he proposes to swoop in and loot the world."

"Is Grunwelt aware—"

"Only our representative there. They don't have any espionage system on Selva—they've never seen her as a potential threat. How could they? Selva has only two working interplanetary vessels, not even a Class II spaceport."

"Then how does Selva propose to—"

"That's the funny thing. They *could* do it. Sneak attack with ten, twelve small ships. Bomb a couple of cities, threaten to bomb more, collect the booty and return. Leave a couple of ships in orbit as insurance against retaliation."

"Never work."

"I know it wouldn't work and you know it wouldn't work and I suspect that Alvarez knows, too. We can only guess at what he's actually up to."

"Power base, I suppose. He'll use the scheme to make himself top man on Selva."

"And then perhaps blackmail himself into a position of power on Grunwelt. Who knows? That's one thing you may be able to find out. The man you'll be impersonating is Ramos Guajana. You're one of four or five skilled duelists who have been systematically assassinating, not those who oppose Alvarez, but the sons of that opposition."

"As soon as they turn sixteen."

"When practical." Ellis lit up a stick and passed the box to McGavin. "It's all very legal."

"I'm sure. Thanks. But question:

how could this wreck, Guajana, bump off anything bigger than a cockroach?"

"Oh, you're normally in much better shape. Guajana's been imprisoned for over two months—starvation diet, beatings almost daily. You'll be in good fighting trim soon after you escape."

"But first I have to starve down to where I can slip through the bars?"

"Oh, no. We have a foolproof plan." Ellis looked at his watch. "You'll get more detailed orders on the ship. Put out your cigarette, we've got to—"

"There's not that big a rush," Otto said. He smoked slowly for a few minutes. Then he put out the stick and returned to his chair, and Ellis put him under with a sequence of nonsense words.

"When you awaken," Dr. Ellis said confidently, "you will be about ten per cent Otto McGavin and ninety per cent Ramos Guajana. Your response to any normal situation will be consistent with Guajana's personality and abilities. Only in times of extreme emergency will you be able to call upon your skills as a prime operator.

"Pulpy. Rouge. Battery. Cashedew." He pushed a call button under his desk.

Guajana/Otto shook his head twice and looked across the desk with clear eyes full of pain. His face had changed in subtle ways.

"I will remember you, Doctor."

II

MISSION PROFILE

NAME: Guajana, Ramos
Mario Juan Federico.

AGE: 39 SEX: M

MAR STAT: Div

BIRTHPLACE: Paracho,
Stvo. Or., Selva

ADDRESS: Currently detained
at Cerros Verdes Clinico
(psych) awaiting trial for 1st-
degree murder.

EDUC: Equiv 1-2 yr college

PROF: Dueling master

DIST PHYS CHAR: Body
and face covered with dueling
scars (see accompanying
chart); presently showing ef-
fects of severe beating, lack of
medical treatment.

AGENT: McGavin, Otto
(S-12, prime)

SUBJECT—AGENT
CORRELATION
INDICES (attached)

OVERALL0.86

PO SCALE: 0.99

TIME SURG: 3d, 4hr

TIME PO: 24d, 12hr

AND there were over a hundred pages after that. It was the only thing to read in the crowded cabin of the tiny T-46 and—in the four weeks it took to get to Selva—Otto/Guajana read it over completely 63 times.

Most of it detailed Otto's mission. From past experience, he knew that ninety-nine per cent of the planning would be worthless after the first day or two. And as far as the reams of data about the man he was impersonating—normally that would also be useless; if he ever consciously had to *act* like the man, it would mean his PO was fading and he would soon have to fight or run for his life.

But most personality overlays are done in hypnotic rapport between the agent and the person he is going to impersonate. In this case that was impossible; Guajana couldn't be kidnapped for a month and have his copy remain of any use. So they had examined and profiled Guajana as well as possible, and Otto was a very good academic copy of the man. He lacked the important artificial memories that would have been overlayed in hypnotic rapport—but he could make a good case for having been beaten into amnesia.

So Otto memorized all of the information about Guajana, just in case, which was not too pleasant: Guajana was about the most villainous person Otto had ever impersonated. Cold-blooded murderer of children. Well, maybe he had a good side. Kind to snakes or something.

OTTTO landed on Selva, in a small clearing in the mountainous jungle that surrounded Cerros Ver-

What a fantastic December this will be for astronomers, NASA-types and sf enthusiasts all over the home planet! Even as we write this copy—on a glorious October morning—Pioneer 10 is speeding toward its rendezvous with Jupiter on December 3, passing only 85,000 miles from the planet's surface. At last, we humans back on Earth will get a look at Jupiter and its moons when the camera aboard the probe begins to send back pictures.

What do we actually know about that mysterious gas giant with its big red spot? Actually, not a whole lot. But that has not stopped our best science-fiction writers, who have been to Jupiter and back many times—long before the scientists. Now the time has come to compare the speculations made by our own sf pioneers with the actual data collected by the Pioneer probes.

To mark this historic occasion, Carol and Frederik Pohl have edited an anthology for us called—what else—JUPITER, collecting the very best stories ever written about that planet and/or its satellites. The Pohls have selected stories by Blish, Asimov, Simak, Weinbaum, Rothman, Gallun, Anderson, Del Rey and Clarke . . . a most impressive gathering, and all together at your paperback book dealer for \$1.25.

• • •

Take a strong science-fiction theme and ask two well-known writers—one male and one female—to tackle it. That's the idea that inspired TWO VIEWS OF WONDER, an anthology of all original stories, edited by Thomas N. Scortia and Chelsea Quinn Yar-

bro. The paired writers may have started at the same launching pad, but their stories are light-years apart. Who says men and women think alike? You can't tell it by this book! People like Harlan Ellison, Joe Gores, Miriam Allen de Ford, Reginald Bretnor, Sydney J. Van Scyoc and lots more have taken up the Scortia-Yarbro challenge—and the results are fascinating.

Speaking of our friend Tom Scortia, he and our good buddy Frank Robinson have a big mainstream thriller coming from Doubleday in June. You'll be hearing lots about the book soon, and a major motion picture will follow. Congratulations to two old friends!



Still time to pick up some of Ballantine's deluxe books and specialties for last-minute gifts. Have you seen **FANTASTIC ART? OR SEVEN ARROWS**—this seems to be the year of the Indian? Or the new box set of **THE LORD OF THE RINGS** with new covers on the four books by Tolkien—how much we all miss him—himself? And what about the 1974 **TOLKIEN CALENDAR**? Our sales people tell us this one's been a sell-out. But you may be lucky and still find one about. Happy hunting!

Remember John Gardner? He's the chap who wrote **GRENDL** and **THE WRECKAGE OF AGATHON**. His new book **THE SUNLIGHT DIALOGUES** is just out in paper, and we have boxed it along with the two other titles as a very special promotion. Of course, you can still buy any of the three books separately; they are all featured—boxed or loose—in eye-catching floor displays.



And now from all of us to all of you, happy holidays. We'll see you in '74 right here with news of all the best science fiction . . . BB

des on a cloudy, absolutely starless night. His timing was very bad.

The T-46 is about as automated as a spaceship can be. It locks in on a landing signal—generated in this case by Otto's TBII liaison—and casts about for the nearest thirty-meter stretch of level ground on which to land. But the signal in this case was being generated from the top of a steep hill in the middle of a rain forest so up-and-down that it would drive a cartographer insane.

The ship glided to a stop and Otto pulled from a pocket of his rags a simple signal detector/rangefinder that told him he was 12.8 kilometers south-southeast of where he wanted to be. A small error in a 145-light-year journey, but Otto/Ramos was understandably upset.

As said, the T-46 is very automatic. Its function is to land an agent safely and get away—its door opens and the agent has sixty seconds to clear out. In this case, it was upsetting, because one of the things Otto had read in his 100-page report indicated that only rabid sportsmen and other fools ventured out into Selvan jungles at night.

Otto got out and felt the ship depart silently behind his back. Laser ready, with his left hand he adjusted his nightglasses and tightened the shoulder straps of his kit. He looked around and saw nothing but then felt a crawly sensation center on his back and whirled.

At neck level and ten meters away a batlike creature with a three-meter wingspan and an excessive number of claws and teeth was sliding rapidly through the air with a bloodthirsty grin on what served it for a face. It seemed to weigh about as much as a human child and screamed like a child when the laser opened it up in midflight and it tumbled suddenly graceless over Otto's head to crash into the tall grass beyond him, where it thrashed twice. There was a second's stillness and then a slithering sound and then the sound of strong jaws crushing bone.

In the flare of the laser Otto had seen a hundred pairs of hungry eyes. There was no way to whistle the ship back from its slow ascent to orbit.

Perhaps it is better in some absolute sense to accept a known danger, however great, than to forge off into the unknown. Otto knew that the woods likely held a more interesting variety of fauna than this small veldt—but in the thick growth, nothing would glide silently smiling upward the back of his neck. He checked his direction bump against the small rangefinder and set off north by northwest.

Twice in ten steps Otto fired at nothing. He started to curse himself for wasting power and then on the twelfth step, a red snake with a head the size of a man's and eyes that actually did glow lunged for Otto's belt buckle. After the laser

severed its head, the body coiled and writhed through eight long meters of grass. For all the years of training and conditioning and experience, Otto suddenly had no control over the toroidal muscle that makes elimination a polite and private function. His anal sphincter bucked and spasmed in that final reflex that tries to make a trapped creature an unpleasant meal. There was no room in his mind for thankfulness that he had taken the elementary precaution that kept him from fouling himself—there was nothing in his head but primitive panic from ear to ear and he screamed and ran blindly for two seconds, hit dirt in a flat dive, rolled and came up firing. The laser's beam made a brilliant arc swinging back and forth in front of him, then behind, saving his life when it killed the bat-creature's mate. When he took his finger off the trigger the glade was in crackling flames that dimmed and smoldered out in the dampness. At the edge of the wood something gave a bad imitation of a human laugh and Otto's self-preserving panic reached so high a level that it flipped the final mental switch the conditioners had put into his brain and he was suddenly ice.

McGavin, you are going to die.

I know that, McGavin.

Do you know what to do before you die?

Kill!

A man who might know once

said that there is no creature in the galaxy more dangerous than man. At any rate, few men could be as dangerous as one who has given up all hope for his own survival—add to that twenty-three years of experience in mayhem and you may have the only kind of man who could possibly survive three hours alone at night in a Selvan jungle.

THE fact that nighttime is so hostile on Selva was the single most important influence on the strange evolution of Selvan politics. The planet was originally colonized by five hundred idealistic volunteers from the Terran country of Uruguay; members of the *Programa Politico de Mao*, who had bought the planet cheaply from a mining corporation that couldn't find anybody willing to run their machines.

El Programa arrived with a nice efficient setup, a division of duties and rewards that might have worked very well in a more hospitable environment.

The mining company had not totally misled them about the danger of Selva—they came with guns and electric fences and grim determination and absolutely no desire to go near the jungle at night. But to the planet they were just so many relatively accessible pieces of protein dropped in the middle of about the most competitive land ecology ever discovered—

25,000 kilograms of monster meat.

They lost nearly a hundred members the first day and the same number in the week that followed. The next week forty vanished, then seventeen and then eight.

It would perhaps be naive to infer that a primitive kind of natural selection was going on, that only the toughest survived. There may have been some element of that, but far more important was the factor of simple luck and practice. They had all been farmers by profession—and temperament—and no farmer, however tough, could know enough about knee-jerk killing to stay alive long on Selva—except by luck. If he lived and learned he eventually needed less luck—although he became a less pleasant neighbor.

Inexorably, in less than one generation, what had been intended as a gentle experiment in communal living degenerated into a bizarre association of mutually suspicious clans, a system more appropriate to the fourteenth century than the twenty-third.

It started with the status of women. In *El Programa*, women were supposed to have been absolutely equal to men, except for performing the special function of childbirth. To keep the colony from becoming inbred, the planners had included ten thousand sets of sperm and egg, ready for quickening; all of the expedition's men had allowed themselves to be sterilized.

With what were then considered modern medical techniques, a woman could give birth in four to five months after implantation.

By the time the population had stabilized, at around 200, it was obvious that every female had to be kept pregnant every day for the rest of her life, until her womb cried uncle, or the race would wither on the vine. And she had to be protected from Selva, which was virtually a sentence of life imprisonment, with time off for old age.

At first the women were kept in the five colonizing vessels, now useless as transportation but proof against teeth and claws. The men stayed with them at night, and ventured out during the day to hunt, which was easy, and try to farm, rather difficult with one eye and one hand otherwise occupied.

After some ten years they did manage to build high fortifications around each ship. The electric fences, which had proved useless before because dead creatures would just pile up and eventually make a bridge, were unraveled and restrung as barriers against the gliding monsters.

Population pressure shoved the walls outward as the years went by. The people lived first in capsules, then stockades, then forts and finally in walled towns. Eventually five towns grew together to form the sprawling city of Castile Cervantes.

There were schools, but they taught a minimum of academic

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subjects and a maximum of how to stay alive.

Most of the first generation still considered themselves communists. The second generation thought communism was ridiculous. The third generation was sentimental about it and by the tenth generation very few people knew what it was.

With the women locked away like precious jewelry and the men spending half their waking hours in the expectation or dispensation of bloody murder, it was not surprising that an ugly form of social organization should develop. Since strength and ruthlessness were the only survival traits the strongest and most ruthless went to the top and made their own rules.

They conquered their own planet in three hundred years. When they started looking for other worlds to conquer, they broke one of the very few interplanetary laws—and the Confederation, through its clandestine TBII arm, sent one man to check out the situation.

OTTO MCGAVIN was still alive when dawn broke and the miscellaneous uglies tromped or slithered or flopped or flapped back to their holes and caves.

He sat exhausted in the middle of a wide circle of burned, bizarre-looking meat. That was what saved him. He hadn't had to fire a single shot in the past hour—Selva's night-foragers naturally preferred a

freshly dead meal to going to the trouble of killing the new one that spat fire.

When the sun cleared the top of the jungle canopy Otto saw no sign of life in either the jungle or the clearing. Finally feeling safe, he automatically slipped back into the Ramos Guajana personality. He shook a fist at the dead creatures and shouted a joyful curse. Then he removed the sheath knife from the side of his kit, sliced a chunk of thigh from one of a creature's six and cheerfully munched on it as he plunged into the jungle.

At Ramos's normal walking speed, he could cover 12.8 kilometers in a comfortable hour-and-a-half. But jungle trails are slow going and it was nearing dusk—Ramos starting to get worried—when he broke into a clearing at the base of a steep hill. A handsome brick-and-stone building, evidently a lodge of some sort, sat on the top of the hill. Halfway up the hill a moat protected a substantial wall topped with electric webbing. He followed the path up the hill to the moat. A steelite drawbridge lowered and Ramos, wake-up jungle noises at his back, hurried across it. Another steelite door inside and the drawbridge rose behind him, trapping him in a small area.

"I am not programed to admit you," a metallic voice said, "and the proprietress is not at home to identify you." A light came on in a little alcove to his left. "You are

protected from the night, however, and there are sanitary facilities and food machines to your left." There sure were—all coin-operated. All he had was in large bills—and counterfeit at that.

"Can you change a fifty?" he asked the machine.

"Repeat, please."

"Can you change a fifty?"

"I am not programed to admit you—"

"Oh, shut up!" That was evidently in its programing—it shut up.

When he picked the lock on the toilet the light went out.

AFTER an hour of darkness Otto heard a hovercraft land on the top of the hill. A few minutes later the door to his little cell opened. He was crouched behind the sandwich machine, laser centered on the door at navel-level.

"Guajana," a female voice said, "Ramos Guajana?"

"*Si. Aqui.*" He suddenly remembered that he hadn't put on night-glasses.

"Ah, there you are." She must have had hers on. "Put away that gun and take my hand. I'll guide you up to the place." They walked up a steep path. "I've been trying to find you," she said. "I discovered where you spent the night. Very impressive."

He didn't say anything.

How many months since he had been this close to a woman? His

hand sweated, clammy in her warm soft one. He felt wave upon wave of sexual tension so acute it affected stomach more than loins, every time he stumbled into a rounded hip or backside.

"Hey, keep your hands to yourself."

"*Mierde, no veo,*" he growled. With effort: "Sorry, I can't see."

"Uh-huh. Well, we're almost there." Ramos could make out the gray bulk of the lodge looming against the black sky. "And here we are." She stopped and worked a heavy-sounding iron lock. "The Vista Hermosa Hotel. 'Hotel of the beautiful view,'" she translated needlessly. "Went out of business twenty years ago—watch your step—and the Confederation bought it through proxies." They were inside, walking over a musty-smelling carpet.

"For such an emergency as this?"

"No. Actually the reason is pretty simple. They thought for a while that the Senado was moving to Paracho, wanted a cheap place for a consulate. Got stuck with it. Stairs." Ramos hit the first tread as she said that. He stumbled and, groping, found her calf.

He touched her again standing up and she showed her affection with a stinging slap.

Coolly Ramos grabbed her wrist and twisted her off-balance. He fell on top of her, pinning her under his knee, and pressed the muzzle of the

pistol to her throat, swearing gutturally. He snapped off the safety and then slowly clicked it back on. He stood up.

"Sorry. Please remember. I *am* Ramos Guajana."

She regained her feet with a rustling of full skirts. Her voice quavered. "I know. But I am what I am, too. On Shalom we—don't *touch* people that way!"

Nothing to say, Ramos shifted the pack on his back noisily.

She sighed. "Still, we can't risk a light. Give me your hand. It's not much farther."

They went to the top of the stairs and down a corridor to the left. The door to Otto's quarters opened noiselessly and closed with a solid snap.

"Thumbprint lock. We'll reset it." The lights came on, dazzling.

THE windowless room had three pieces of cheap furniture: an airbed in one corner and a wooden desk and chair in another. A small holo cube on the desk showed the inside of a cell where a man was sleeping. Beside the desk was a rack holding seven swords. Ramos crossed to it and ran his fingers lightly along the blades. "Adequate," he said. He pulled one out of the rack and made a few passes at an imaginary foe. Then he looked closely at the sword.

"I'll need a whetstone and a leather strop. And a roll of tape for these handles. Black tape, the kind

electricians use." For the first time, he looked up and saw the girl.

"Uh—" By the standards of Shalom, she was a plain-looking woman. Which meant she was perhaps less perfect of figure and feature than Helen of Troy. She was dressed the way young women all dressed in this part of Selva, a clinging velvety bodice revealing only the tops of her breasts, clasping her body down to just past the hipbones, swelling out into a full ruffled skirt, long by Earth standards.

Considering that nine-tenths of him had been three times jailed for rape and ten-tenths had been locked up in a tiny T-46 for weeks, Ramos reacted in a fairly gentlemanly way: he dropped the sword, snarled and took three steps toward her, clutching—

And from an intimate place she produced a small black pistol. "Now you stay right where you are!" she said, more hysteria than menace in her voice. But it was quite obvious that she was going to burn him down in another second and the sense of immediate danger put Otto in full control of the body.

His own pistol was lying on top of his kit, which he had dropped from his back in the center of the room. If she were any kind of a marksman she could hit him five or six times before he'd be able to reach it. He put his hands on top of his head.

"Now, now," he said. "Don't get

excited, it's just—heh, well—you know—”

“It's like they say,” she said, a little more calmly, curiously, “You're actually two people.”

“That's correct.” He bowed slightly at the waist, hands still on top of his head. “Otto McGavin, at your service.”

“Well, you better stay ‘Otto McGavin’ for a while.” She lowered the pistol. “What a strange name you've—”

Ramos dropped his hands to his side, fingers clawed, and began inching forward. She brought up the pistol again and he raised his hands, more slowly this time.

“Can't you control yourself for just one second?”

“Calm, please, calm down now—uh—no. Actually I can't exactly control it. When I'm not in immediate danger I have to act like Guajana. The compulsion is automatic. Otherwise I might accidentally, you know, act out of character.”

She was backing toward the door. “Well, don't think for a second you're going to act *in* character with *me*.” Hand on the knob. “I don't think we'll reset the lock after all. Not until I figure out what to do with you.” She snapped off the lights, jumped through the door and slammed it behind her.

A fraction of a second later, Ramos crashed into the locked door. “*Cago en la leche de la madre de su madre!*” he raged. He

pounded on the door with his fists, cursing ever more imaginatively and loudly for a few minutes. Then he walked heavily across the dark room and felt his way to the bed.

III

“WAKE UP, McGavin, Guajana—whatever your name is.” Ramos snapped awake and looked around but there was no one in the room. Then he saw her small image in the holo cube

“Goat bitch,” he said illogically, sneering, “I no longer desire you. Set me free that I might go find a female of my own species.”

She sniffed contemptuously. “Sooner or later, you'll be free enough. Right now, there's work to be done.” She faded away and was replaced by the image of the real Ramos Guajana, sitting in his cell. The resemblance to Otto/Ramos was fairly exact.

Her voice over Ramos's image: “Notice that he has a new lump on his head and a healing cut on his lip. He got these fighting with a guard, day before yesterday.”

“We have orders saying you must match him as near perfectly as possible before you can begin your mission. It would be dangerous to risk cosmetics, of course, so we are going to have to inflict similar injuries on—”

“Please come and try.”

“That won't be necessary. Not me personally, anyhow.”

The door to his quarters swung open, and a big ugly specimen stood there, with a gun in one hand, a padded club in the other.

"Sorry, Colonel McGavin," he said, raising the gun. "Anesthetic." He fired as Otto tensed to leap.

RAMOS woke up with a pulsating ache in his head and a swollen stinging lip. He counted teeth with his tongue; they were all there but a couple were loose.

"There's some analgesic in the desk drawer, Colonel." The man who had put him to sleep and, presumably, knocked him around while he was unconscious, was still in the room. Or again in the room—he'd gotten rid of the gun and the club. He was sitting against the far wall with two swords and two clear plastic helmets.

"Call me Ramos," Ramos/Otto said, going to the desk. Standing up and walking produced a sensation not unlike probing his temple with an icepick. Ramos touched the side of his head and closed his eyes for a second, tried to ignore the pain and failed.

He took the pill and touched his lip gingerly. "I suppose I should thank you. Do you render this service often?"

"Not for cosmetic purposes." The other man stood up. "Thought you might like to go a couple of rounds. These are practice swords, epees." He tossed one to Ramos,

who caught it by the handle without effort. "You feel up to it?"

"I suppose." Actually, Ramos/Otto felt a thousand per cent better, even with the new lumps, than he had in Dr. Ellis's office on Earth. The Personality Overlay people had had to overdo the damage to his body, to allow for healing during the four weeks' transit. He wasn't up to normal pitch, for either Guajana or McGavin, but he had some measure of strength and swiftness back.

"Frankly," the big man said while Ramos tested the balance and temper of the weapon, "I'm skeptical. I don't see how they can teach you in a few weeks what took Guajana most of his life to master."

Ramos shrugged. "It's only temporary." He sized up his opponent. The big man moved with a grace that seemed almost effeminate for a man of his size. He had all of the physiological advantages for fencing—he was taller than Ramos by a head and a half, had long arms and legs. But Ramos knew that people with a long reach and long lunge tended to get over-confident with a small opponent. It would be fun, setting him up for the kill.

Ramos adjusted the helmet, a cool porous plastic shield that protected his face and ears and throat.

"I'll take it easy at first," the other man said.

"No need." They took up positions in the center of the room.

Ramos noted that his opponent's blade was canted out of line to the right by more than two centimeters, exposing a little too much shoulder and forearm. The big man either had bad form or had set up a trap, not terribly subtle. Without thinking about it, Ramos executed an attack that would take care of either alternative—in one motion feinting to the exposed forearm, slipping under the expected parry, then double-disengage (bellguard high for this line against the possibility of stop-thrust or out-of-time remise), *lunge* and the blunted point thumped to rest precisely between the third and fourth ribs.

"*Tocar*," the big man acknowledged, fingering thoughtfully the spot where he had been touched. "I'll have to be more careful."

HE WAS more careful and very good by anybody's standards, but in five engagements Ramos scored five touches. None of the clashes lasted more than a few seconds. The longest was attack-parry-riposte-parry-remise-parry-remise-touch.

"Very strange." The man took off his mask. "Colonel, uh, Ramos, I mean—you say they taught you how to fence like Guajana?"

"That's right."

"But I've fenced with Guajana—hundreds of times! And—"

"And you're still alive?"

"No, no, not dueling. He was my coach five, six years ago. That's

why—anyhow, you don't really fence that much like him. A casual opponent wouldn't see it, but I know where his weaknesses are—I've even beaten him a few times. You don't have those weaknesses, not those particular ones."

"Ah." Ramos's brow furrowed, searching his memory of the mission profile. "Well, it's understandable. I had to get it second-hand, since the real Guajana was stuck here. They got the best fencing masters they could find and had them study tapes of Guajana at work. Then the masters taught me in tandem, simultaneously, all of us under hypnosis. So I got imprinted with a kind of average impression of Guajana's style."

"Complicated," the man said. "But easy, compared to learning the real way. I'm glad it doesn't last."

"I wish it could last a little longer. I've got to wrap up this project before the imprinting starts to fade. Two months at the very most."

"Anything I can do to help, of course—"

"No. Don't even say it. You don't want to help; you don't even want to *know* anything more about this than you do now. Same goes for that bitch—"

"Rachel?" The big man looked hurt. "But—she's the TBII liaison."

"Something this backwoods planet shouldn't even have! I never

feel safe on an assignment where somebody else knows my true identity. People have a nasty way of being compelled to talk. So far, two of you know who I am. How many others—the whole embassy staff?”

“No, we’re the only two.”

“Then the best thing you could do for me, both of you, would be to get off-planet. Right now.”

“**M**R. GUAJANA,” came a thin voice, Rachel’s, from the cube, “try to remember that we are the officially appointed representatives of the Confederation on this planet. You are only a tool, a specialist sent to aid *us* in the resolution of this problem. It’s still our respons—”

“You know, I don’t give a flying—” Ramos stopped, continued in a lower voice: “Deep down inside, I don’t really care whether Selva builds a thousand warships and blasts Grunwelt back to the Stone Age. I would never even have heard of Selva if your Alvarez hadn’t come down with a big Attila complex.” Normally, Guajana remembered vaguely, he was very polite and suave with ladies.

“Then I wouldn’t say that you were ideally motivated for your job,” she said scornfully. “Don’t you have even a little sympathy for—”

“Sympathy, motivation, *mierda*.” He took a deep breath and tried to calm down. “Sympathies can change and motivation is

a simple word for something nobody understands. *I* do a good job, the best job I can, because I’ve been conditioned down to the last brain cell and stringy nerve to complete my mission. I am totally reliable because nobody but the TBII has the knowledge and equipment to break my conditioning.”

“You are a thoroughly despicable person.”

“Because I pinched your butt? Big deal. Big—”

“Please!” The big man was patting the air with both hands, conciliatory. “Rachel, nobody questions your motivation and, Colonel, nobody questions your conditioning. Why don’t we just *drop* all this and get down to the problem at hand?”

“One little matter first,” Ramos said, still fuming, “I know who Rachel Eshkol is—she was identified in my orders—but who the hell are you?”

“Octavio de Sanchez. I work for the embassy.”

“Well, I’m glad she didn’t just pick you up off the street. What do you do at the embassy, when you’re not dabbling in espionage?”

“Well, ah, I’m a data analyst for the Vital Statistics section.”

“And how does this qualify you to be in on our little secret?”

“I needed somebody,” Rachel began.

“You didn’t even need *yourself*?”

“I needed somebody of unimpeachable loyalty who knew Gua-

jana well. To check your disguise, your acting."

"Who's acting? What disguise? I—am—Ramos—Guajana."

"He talks just like him," Octavio said.

"See?" Ramos threw up his hands. "For this you doubled my risk of exposure."

"Octavio de Sanchez is absolutely trustworthy." Her image in the cube was leaning forward, flushed with anger.

"Oh, you want to get into *that* orbit. Octavio, old sport, if I offered you a million P's to go over to Alvarez's side—"

"No. He is too unutterably—"

"Two million? Five? Ten? Your life? To keep your children from being tortured to death? Your mother?"

"Yes, I see. Of course. If the price were enough any man would—"

"Any man or woman on this planet—except me."

SILENCE for a few seconds. Then: "Why don't you just get rid of us—mere mortals," Rachel said.

"I considered it," Ramos snapped. "And I didn't reject it just because I thought you might be of some use to me later on. You won't be."

"Then why not just kill us?"

"Or try," Octavio added, flexing the practice sword.

"For one thing, it would draw

unnecessary attention to the operation. For another, even Ramos, the real Ramos, isn't totally amoral. Certainly not impractical. He doesn't go around killing people for sport—or just because their existence inconveniences him."

"He's killed sixteen people," Octavio said grimly.

"Seventeen. But always for what he would consider good reason, at least sufficient profit." *I've killed almost that many*, Otto thought, *just to keep the Confederation running smoothly*. "Granted, he might require less reason than you would."

Octavio nodded. "Look, we're still getting nowhere. Hadn't we best go over the plan, coordinate our—"

"The plan is unworkable and is rejected as of now. Kidnaping Ramos and sneaking me into his cell, then having me escape—that's the kind of goddamn comic opera thing Planning always dreams up."

"But we have orders—" Rachel said firmly.

"Look at the rank of the man who signed those orders and then consider my rank. The TBII may not be terribly efficient, but in some ways it isn't stupid. The only reason I have any military rank at all is to keep people like you from hamstringing me."

"What's your plan, then?" she said. "How is it any better?"

"The less you know, the better for both of us. You may do two things for me and then, Octavio,

you can go back to your statistics and Srta. Eshkol can go back to—whatever she does for fun.”

“That suits me fine,” she said with heat. “The sooner you get out of my life, the happier I’ll be.”

“What would you like us to do, Colonel?”

Ramos smiled at the cube for a second and turned back to Octavio. “First, get me reliable, inconspicuous transportation to Clan Alvarez. I suppose that would be a horse.” *They make noises about interplanetary war and still use draft animals to get around.* “Then, when I’m ready to leave, get rid of the real Ramos.”

“Kill him?”

“That would be safest. Use your own judgment.”

“You are forgetting that Sanchez and I are not casual murderers. We’ll kidnap him as planned before, and lock him up in the room you’re in now.”

“All right. I advise you to take out the swords first.”

When Octavio left, Ramos flopped down on the bed with a sigh of relief. It was hard work, trying to think like Otto and be Ramos at the same time.

Starting tomorrow, he would have to move fast. A pity—he would’ve liked to supervise the abduction. Perhaps the prisoner would be killed while trying to escape.

Thinking more like Ramos now, that’s good.

IV

TO GET to Clan Alvarez, Ramos had to go over two hundred kilometers, through Clans Tueme and Amarillo. It took him two full days, riding the spavined nag Octavio had supplied him. The second time he stopped for rest (and recreation), at an inn just across the Amarillo-Alvarez border, the prostitute he hired turned out to have known Ramos for years. She remarked about how gentle he’d suddenly become, but seemed relieved rather than suspicious.

What other important aspects of Guajana’s life did the PO section know absolutely nothing about? Ramos hoped his amnesia story would cover him.

He had called the Vista Hermosa before crossing the Tueme border and Octavio had told him the abduction had gone smoothly, according to plan. No violence—just a certain amount of money passed around, some personnel suddenly transferred. Guajana was safely locked away in the hotel. There was a reward out for his recapture, but the physical description on the notice was inaccurate. The ruse would work for two days (before a new poster, with picture, would be issued), which gave Ramos/Otto plenty of time to get safely into Clan Alvarez.

It was a tiring way to travel. Except for some of the larger towns, which had stone or maca-

dam streets, most of the roads were crushed gravel. Every time a non-equine transport passed it would pepper Ramos with a shower of pebbles and raise a cloud of dust that would take several minutes to settle in the hot still air. The big ground-effect trucks, which passed about every half-hour, were especially diverting, giving Ramos a nice familiarity with the jungle. He learned from one painful experience that horse and rider had to get behind a couple of meters of bush when one of the huge vehicles lumbered by—that or die a slow death of flaying in one day's journey.

By the time he reached Alvarez, Ramos was covered with a half-centimeter of crushed dust, aching with scratches from thorns and flung pebbles and nearly paralyzed with saddle sores. He left his horse at a public stable, soaked for an hour in a hot tub, had his larger wounds treated, bought a rough massage and a new suit of clothes and walked slightly bow-legged to the castle.

The castle was an airy fantasy of glass and polished steelite—obviously new, although more than a century out of date by the architectural standards of more civilized planets. Guarding the front gate were two pairs of men with crossed pikes, trying not to look uncomfortable in their foppish archaic uniforms. Their armament was more ornamental than functional, but it was backed up by two mega-

watt-class lasers in shiny steelite bunkers flanking the road. A sign directed visitors to a small dome beside one of the bunkers. The laser's large green eye tracked Otto as he passed in front of it.

Inside, the dome had brick-red walls with black tile underfoot and what looked like a tiny woman seated at a miniature desk across from the entrance. In the subdued light it was hard to see the faint cube lines, but she was obviously a holographic projection.

The woman was plain and looked efficient. "Please give me your name and the name of the department or person with whom you have business."

"My name is Ramos Mario Guajana. I believe I am to see el Alvarez."

"Oh—no, sir, that's quite impossible." She looked at him expectantly. Ramos stared back.

"One moment, please." She tapped out something on the keyboard in front of her. "That's Guajana with an 'a'?"

"Yes." She tapped some more and watched a screen to her right.

"Oh—Mayor Guajana, you are supposed to report directly to Commandante Rubirez—does he maintain a regular office?"

"Uh—I don't know." "Mayor Guajana? Another little detail that Planning had missed—Ramos/Otto was a field-grade officer."

"Let me see whether I can trace him." She played with the key-

board some more and talked quietly into a microphone.

"Commandante Rubirez is in the library, in the Rare Books Room," she said with a tone of dismissal.

"Where's that?"

"Pardon me?" Furrowed brow, cocked head.

"Look, I'm a field operative. I don't know my way around this town. Where is the library?" With exaggerated simplicity, she told him: south half of the sixth floor.

RAMOS/OTTO tried, with his newly-discovered majorhood, to pull rank on the palace guards when they asked for his sword. The captain of the guard coldly informed him that the palace guard was outside the military's chain of command and he could surrender his sword or be burned on the spot. He handed it over. A metal detector bleated as he walked through the gate. They got his pistol, too.

Tangy cold inside the palace. Ramos realized it was the first air-conditioned air he had breathed since getting out of the little T-46. The first floor was all expensive woods and plush carpeting—mediocre paintings alternated with floor-to-ceiling mirrors on the walls. Too much empty space—it was an arrangement that owed less to aesthetic than to easy defense. Any or each of those mirrors could conceal a squad of armed men. Alone on the acre-sized rug, Ramos felt a hundred eyes on him.

The elevator "boy" wore the palace guard uniform and was armed with short sword and laser pistol. He didn't say a word and already knew where Ramos/Otto was going.

There was only one other person in the main room of the library, a clerk filing tapes behind a desk. He also was armed. Ramos was getting the feeling that everybody in the castle was armed, except TBII agents.

"Which way to the Rare Books Room, *amigo*?"

The clerk took off old-fashioned spectacles and blinked at Ramos. "You can't go in there. Occupied."

"I know." Ramos drummed his fingers on the desktop. "I have an appointment with the Commandante."

"Ah. This way." The clerk led Ramos through a labyrinth of tape-files, periodical racks, bookcases. They came to a door marked with a single B. "Just a moment." He rapped on the door and opened it slightly.

"I told you I was not to be disturbed," came a frosty voice from inside.

"A gentleman says he has an appointment with you, Commandante."

"I don't have any appointments with anybody." The clerk was a surprisingly fast draw—he had the pistol steady on Ramos's breastbone right after the Commandante said *I don't* . . .

"I'll get rid of him, Commandante."

"Wait," Ramos said, almost shouting. "I'm Ramos Guajana."

"Ramos?" A book snapped shut. The sound of papers rustling and heavy footsteps muffled by carpet followed. A hirsute head thrust itself from behind the door, at a surprising height.

"Ramos," it growled with what might pass for affection. "Put that gun away, fool—Alvarez should have two such good men." Two long strides and Rubirez enveloped Ramos in a crushing embrace. Then he held him by the shoulders and studied him, head wagging back and forth, looking oddly ursine.

"They have used you poorly, old friend."

"Not as poorly as they might have, Commandante. I was to be hanged." He shuddered. "Or worse."

"Commandante?" He took Ramos by the bicep; steered him into the Rare Books Room. "When was I other than Julio to you?"

"Sir—Julio—that's another thing. They beat me regularly, severely—"

"That's evident."

"—and I seem to have lost my memory. All memories of the past ten years or so." He lowered himself into an easy chair. "This seemed to be the logical place to go after I escaped—from the nature of their questioning." He took a

chance. "I do vaguely remember—you."

A SHADOW, perhaps doubt, passed over the Commandante's bearded face, was gone. "And well you should." He chuckled, turned around abruptly and scanned the leatherbound volumes lining the wall. He selected a thick book titled *Philosophical Discourses*, held it to his ear and shook it. It gurgled pleasantly. "'Philosophy is the highest music,'" he quoted in Spanish, then removed the bottle and two glasses from the hollow book and decanted a healthy portion of brandy into each glass. He handed one to Ramos.

"Grunweltische Brantwein. This is—" he checked the label—"Eisenmacher, 'thirty-six. It might be well to start developing a taste for it."

Ramos held up his glass. "We will fill swimming pools with it." They laughed and drank.

"Then you remember something of the Plan?"

Ramos shrugged. "No more than is common knowledge. My captors—is that the right word?—in Tueme implied that my killing that boy had something to do with it. I also got the impression that they were not too much in favor of the Plan."

"Not yet," Rubirez said. "But we can bring them around. Or do without them. We've gotten the support of Diaz now, much more

important. Heavy industry." He stood up abruptly. "But we can talk about this later. You must be tired."

More curious than tired, Ramos/Otto thought, but best not to press too much.

He nodded. "It was an arduous journey."

"See Teniente Salazar down at the officers billets. I'll call and make sure you get a good place."

"I'd be grateful."

"And—ah! Would you crave feminine companionship?"

"In a relaxed sort of way, yes. My most urgent desires I satisfied at various inns between Tueme and here."

Julio clapped Ramos on the back—gently—and laughed. "Some things they could not change."

V

RAMOS found that his rank—which was new, he was told—entitled him to his choice of private quarters. Only two were available, though. Ramos took the second, even though it seemed more subtly bugged, because it was cleaner and he was expecting company. A girl named Ami Rivera—Julio had said Ramos and she had been close. And Julio had suggested Ramos warn her about his indisposition.

A clerk brought over a bag of personal effects belonging to the real Guajana. Ramos found out disappointingly little about himself

from the items in the bag. There were swords—blunted epee, saber and foil for practice. And functional sabre and epee. Three sets of clothes, civilian. No uniforms. An opened package of pistol targets. Three books from the castle library—one of short stories and two on fencing theory (these were bound technical journals; Ramos looked for his own name but didn't find it). The only thing that didn't have some practical use was a beat-up harmonica, with no upper octave. There was also a little bag of things evidently dumped from a desk drawer—anonymous stationery, pencil stub, eraser, two dried-out pens, postage stamps stuck together, a half-smoked box of dope-sticks but no matches.

Maybe the TBII's Sherlock section could comb through this collection and tell you everything from Guajana's ring size to his preference in women. To Ramos/Otto McGavin, after an hour of close inspection it was still just five swords, three sets of clothes and a bunch of kipple. Anything he could infer from these he already knew.

Ami came by about sundown and fixed Ramos *timorlinos secos*, a regional seafood specialty. She was a laughing, worldly, handsome woman about Ramos's age. He enjoyed talking with her and making love with her and never could decide whether she'd been sent to spy on him.

The next night was a slim young

thing named Cecelia, who had rather more exotic tastes than Ami, but didn't talk much. The third night it was one Private Martinez, rather dumpy and male, who had been sent to bring Ramos to the Commandante's billet.

Ramos had anticipated just a larger version of his own austere quarters, but Julio's "billet" was a rambling stucco mansion in the shape of a squared U, built around a carefully tended garden.

Julio was in the garden, sitting under a large tree at a table covered with papers. A bright lantern hanging from a branch above him hissed softly and threw a circle of soft yellow light around him; the smell of its burning mixed pleasantly with the perfumes of the garden. Julio was scribbling rapidly and didn't hear Ramos and the private approach. The private cleared his throat, signaling.

"Ah! Mayor Guajana. Sit, sit." Julio waved at a chair across the table from him and went back to his writing. "I'll only be a moment. Private, find the cook and bring us some wine and cheese."

AFTER a minute he laid the pen down with a slap and gathered the papers together. "Ramos," he said, stacking the pages, "if they ever offer you a colonelcy, turn it down. It's a first step to a lingering death by writer's cramp." He shoved the papers into a portfolio and laid it on the ground. "I have

your next—ah." He was silent while the soldier laid out four kinds of cheese and poured wine.

"That will be all, private." He sniffed the wine exuberantly and tasted it. "I suppose rank does have its privileges." Ramos compared this opulence to Colonel McGavin's Earthside quarters. He mumbled something in agreement, but privately noted that rank's privileges varied from army to army.

"I have your next assignment, Ramos. Are you familiar with Clan Cervantes?"

"Only as an area on the map."

The Commandante wagged his head in amazement. "And we visited it together—a two-week hunting trip, not five years ago."

"Can't remember a thing about it."

"Hmmm. At any rate, we're having a problem with el Cervantes. He appeared to be with the Plan from the beginning, but lately—well, the details aren't important."

"He's having doubts?"

"Perhaps worse than that. El Alvarez suspects treachery."

"Does el Cervantes have a conveniently aged son?"

"Unfortunately not. He's an old man—his son is almost fifty. But it's a good situation. His only grandson is twelve years old and there is nobody in the family who can take over in the Senado should something happen to the son." He smiled pleasantly. "They have been cursed with daughters."

"Then I am to challenge this fifty-year-old man—and kill him?"

"Yes. It would be that simple, except for one thing." Julio leaned back against the tree. "There's a price on your life now, Ramos. In every Clan except Alvarez. El Tueme offers ten thousand for your head. So first—we have to change your head."

"Plastic surgery?"

Once the scalpel touches 'plastic flesh' . . .

"Of course. We've discussed the possibility."

"Seems extreme. Could they change me back afterward?"

"I don't know. I imagine not."

"I don't like it."

Julio shrugged. "It's your head, Ramos. I'd hate to see you lose it out of vanity."

"Let me think—do you have a copy of the picture they'll be using to identify me?"

"Yes. Come with me." The Commandante led Ramos past two sets of armed guards into the opulent house. He thumbed open the door to a large study. He opened a heavy wooden filing cabinet—also thumblocked.

"Here."

Ramos studied the picture, a good likeness but evidently taken toward the end of his imprisonment. "No problem. Look." He held the picture next to his face. "I don't have the prison pallor any more, and in this picture my face was puffy with bruises. If I shave

off my moustache and crop my hair close, nobody would recognize me."

Julio looked back and forth between the picture and Ramos. "Probably. I'd be happier if you went ahead with the surgery, though."

"It bothers me, Julio. I mean—I have so few solid links with the past, as it is. I have the feeling that if I lose my face—"

"All right. Fine." Julio took the picture back and refiled it. "Tell you what, I'll have Ami bring you some of that lotion, what do they call it, that women use to darken their complexion." He locked the drawer and took Ramos by the arm. "No more work tonight. Let's finish that bottle of wine."

AMI WAS waiting for Ramos when he returned to his quarters. She massaged *Sol Instante* into every square inch of his skin, and it did a very convincing job. Ramos considered the maxim that a soldier had best abstain from sex on the eve of a battle—and rejected it.

VI

WITH papers and currency appropriate for a citizen of Clan Amarillo, Ramos had no trouble getting into Cervantes. He didn't want to go directly to Clan Cervantes headquarters—instead he monorailed to a small town a safe distance from the border, then took

a coach to an even smaller town, primitive enough not to have video service on their phones.

It was a lovely little resort town, Lago Tuira, and he rested for a day and a night at the inn there. Then he placed an anonymous call to the castle guard, briefly warning the Clan that a hired assassin was after the younger Cervantes. The man he spoke to tried to keep him on the line, but he rang off, shouldered his knapsack and slipped out of the inn.

Clan Cervantes was the oldest settled part of Selva and the part where mankind had most effectively modified the environment. The jungle around Lago Tuira resembled a garden gone to seed more than a typical Selvan jungle. The largest creatures there were no more dangerous than a Terran bear or large cat, and relatively rare. So Otto could travel through the early morning dark with little fear of betraying his presence by laser use.

Under cover of darkness, Ramos walked back down the crude road, slipping into the jungle whenever a vehicle appeared. Nobody seemed to be in any great hurry to get to Lago Tuira and none of the vehicles bore official markings. The Clan either hadn't had time to trace back his call—or had decided it came from a crank.

At dawn Ramos left the road and worked his way parallel to it, behind a cover of twenty or thirty meters of jungle. By noon he found

a climbable tree, pitched his camouflaged hammock in the lower branches and slept soundly until dark. Then he walked through the cool night until he reached the monorail terminal. He waited in the woods outside of town until a couple of hours after sunup, then walked down to the terminal, treated himself to a shower, a change of clothes and a hearty meal, and then caught the morning train to Clan Cervantes.

He had no intention of actually trying to maneuver Ricardo Cervantes III into a duel. But he had to make the appearance of setting it up.

Castello Cervantes dominated the largest city Otto/Ramos had seen on Selva—it held nearly a quarter-million people. He decided a good starting point for him would be to try to land some sort of job in the castle itself.

Passengers leaving the monorail had to show their identification to a pair of armed soldiers, who checked their faces against a photograph. When Ramos's turn came he managed to glimpse the picture—it was the one of himself he had seen in Julio's study.

"Who's that, friend?" he asked one of the soldiers.

The man looked at him coldly. "Just be glad it isn't you."

"How long have they been doing this?" he asked the man in line next to him.

"I don't know," he said. "I come

here two or three times a week—this never happened before."

Maybe the phone call had worked.

SECURITY was also tight among the castle personnel, Ramos/Otto discovered when he discreetly presented himself as a job applicant—the one chore that didn't require security clearance was dishwasher, second grade.

The next day he was in the castle commissary, washing pots and pans and keeping his ears open. By afternoon he had learned that Ricardo III was nowhere near Clan Cervantes. The day after the phone call, he had taken his physician's advice and gone on a month's vacation.

Whether Ramos/Otto had precipitated the man's disappearance or not was immaterial. There was nothing to keep him in Clan Cervantes, so he chewed out the kitchen foreman and stalked away. He took an indirect route, through Clan Amarillo, to Castello Alvarez. He called Julio and the Commandante said to come right over, even though it was late.

Bone-tired, Ramos sagged over to the mansion and met Julio in the garden. He recounted a plausible version of what had happened in Clan Cervantes.

". . . so it looks like we'll have to wait, take care of him next month when he has to be back on the job. It shouldn't be any problem."

Julio had been reserved, silent through the whole report. At this he nodded abruptly and said, "All right. We wait." Rising: "Come with me, Ramos. I have something in the study that ought to interest you."

He opened the door to the study and ushered Ramos in. At the far end of the room a man sat on a swivel chair, reading, his back toward them. Julio said, "He's here." The man snapped his book shut; turned and stood, smiling.

He was Ramos Guajana.

"Who is this impostor," Otto/Ramos said, drawing his sword. The Commandante laughed.

"Simply another version of yourself," Guajana said, "with no inconvenient amnesia." His own epee danced fluidly into a *garde* position. "Shall I kill him, Julio?"

"No. El Alvarez will have questions for him. You may hurt him, though. With a minimum of bleeding, please. This rug is the very devil to clean."

"It's strange," Guajana said, advancing. "I am almost fencing before a mirror. But my reflection has pitifully bad form."

Danger imminent, Otto became all Otto McGavin. Who hadn't fenced in fifteen years. And was exhausted.

Guajana took the initiative with an attack *en cuatro* and Otto swatted the blade away, advanced with a series of short jabbing thrusts. Guajana parried them

easily, laughing, then did a simple cutover and pinked Otto just above the right knee.

Guajana jumped back and held his sword up in ironic salute. "First blood."

"I think he's good for a little more," Julio said. "Try for the face."

Got to get inside his blade and use my hands and feet. The wound didn't yet hurt much, but Otto could feel his leg stiffening. Blood was creeping toward his ankle.

Guajana came in blade high, *en seís*, relaxed. Otto stepped forward, ducked, felt the blade graze his scalp, delivered a side-kick to Guajana's leading shin, heard it break, dropped the sword and struck the man's throat with bunched fingers (left hand) while seizing his sword wrist. He held the weapon high out of the way (decided this instant to not use the neck-breaker, let him live) and punched him hard just below the sternum.

He felt Julio's forearm snake across his throat, dropped the broken Ramos, shifted weight, slid a foot grating down the man's shin to crunch on his instep—breaking Julio's hold on his throat—shifted weight again and spun the heavy man over his shoulder and stepped forward to deliver the final kick and

saw laser pistol glint in Julio's hand and

knew he couldn't kick it out from this distance and

(wondering that he was still alive) stepped back, raising hands.

"Don't shoot. I'm through."

Otto heard running footsteps outside the study. The leg wound hurt with a deep ache that he knew meant the large muscle was torn. His hair was matted with dried blood and he had the first intimation of a monumental headache.

With his free hand Julio was feeling for Guajana's pulse. "If you've killed him I will personally castrate you with a rusty knife." He said this calmly, without any sign of hyperbole.

"JOIN your friends." The guard pushed Otto into the cell roughly. His injured leg gave out and he rolled along the damp floor. It smelled of old urine and mildew. A man stood with his back to Otto, staring through the barred window into the lighted yard. On the double bunk was another person, female, crying softly.

Otto swore. "Is that you, Eshkol?" She responded by crying louder.

"That's her." Octavio turned and even in the dim light it was obvious how roughly he'd been handled. His face was one puffy bruise, eyes swollen almost shut. His tunic was crusty with black blood.

"What happened? How?"

"How, we don't know. Five or six men broke into the hotel last night, after midnight—"

"What were you doing there? I told you—"

"I felt that Rachel needed protection."

"Thanks for trying," Otto said. "Go on."

"They disarmed me and took Rachel prisoner. They forced her to open the door to Guajana's room. He didn't seem too surprised to see them."

"Figures. What then?"

"They bound and gagged us—Rachel and me—and took us down the trail to a helicopter. We were here by dawn."

"And they spent the rest of the day trying to make you talk."

"That's right. But I didn't."

"Obviously. You're still alive, so they must have further use for you. Did they do the same to her?"

"N-no," Rachel said, quavering. "Tomorrow, they said."

"Tomorrow I'm sure it will be," Otto said brusquely. "They're going to kill you both, anyhow. Me too, most likely."

"How can you be so sure?" Slight overtone of contempt, hardening her voice.

Otto felt anger rising, knew it was a Ramos-reaction, tried to ignore it.

Pause: "Think about it, lady."

"It seems to me," Octavio said, "that they would want to take as little chance of angering the Confederation as possible."

Otto shrugged and knew it was too dark for them to see the

gesture. "The Confederation has already expressed its interest by sending me. It will be much better for Alvarez if she just disappears—you, too—rather than have you sitting around as evidence that they abducted what is to the Confederation the most valuable woman on this planet."

"But what about you—"

"Shut up. There's a recorder somewhere taking down every word we're saying. Don't let them know anything they don't already know—least of all, about me."

Octavio went to sit on the bunk with Rachel and Otto took over his place at the window. He tested the bars—they were solid.

The door opened with a loud rattle and Otto could see, next to the jailer, the silhouette of a man carrying a laser rifle.

"You're next," he said. "Colonel."

VII

THEY knocked him around a bit and drugged him and then knocked him around some more but Otto, because of his conditioning, could endure it dispassionately. Finally they hurt him so badly that he could do the Zen trick and nothing could hurt him any more. They threatened him with a simple death and then with an imaginative one and to both he only smiled pleasantly.

A tiny voice that he heard only very infrequently—so profound was his conditioning—said, *They really are going to kill you this time, though you might live with the right combination of truth and bullshit.*

Another, perhaps the rational voice, said, *Your only chance is to throw in with them.*

Or perhaps the rational one was the voice that said, *They have bound themselves to kill you no matter what you do . . .*

And the trapped animal inside him said without words: *Do anything to live.*

But all of this debate, rational to venal to visceral, came to nothing. If the next beat of his heart would betray the Confederation, the *Thou shalt not . . .* imprinted on every cell of his body would hold that organ still.

The fourth time he fell unconscious they didn't shock him back to wakefulness.

OTTO awoke in a white room, in bed. Each arm and leg was individually secured, but only two by jailer's cuffs. His left arm and right leg, as well as two fingers of his right hand, were immobilized in orthopedic tractors—he remembered when the fingers and leg had been broken, but the other must have been snapped while he was unconscious.

His tongue counted seven teeth missing. Four had been extracted with pliers, the balance with a

truncheon. Amateurs. He knew at least eleven ways to cause greater pain without leaving any mark. He toyed with the fantasy of demonstrating his skills on the men who had interrogated him. Woozy with anesthetic and fatigue—and having no real reason to stay awake—he carried that fantasy with him into darkness.

When he came to the second time a man in a white tunic was withdrawing a hypodermic gun from his arm and in a fraction of a second all the pains came back in one electrifying spasm. He fought it and then bent with it and then was above it—the pain was there but it was only a testimony that he still lived.

"Gul' morzhling, Dogther," he said and then adjusted to the indignities inside and around his mouth: "Good morning, Doctor."

The man just looked over his head and wrote something down on a clipboard. Then he walked out of Otto's field of view and said, "Go ahead."

Julio Rubirez came in with a chair and sat down at the foot of Otto's bed. "Commandante," Otto said.

Rubirez regarded him for long seconds. "I can't decide whether you are the best-trained soldier I have ever seen or simply not human."

"I bleed."

"Perhaps the Confederation can make robots that bleed."

"You won't find out from me."

"Not by torture, granted." He stood up and, holding on to the bedrail with clenched fists, leaned closer to Otto. "You present an unusual problem."

"I should hope."

"I've been in conference with el Alvarez. He has the idea that perhaps you can be convinced of the value of the Plan. Perhaps not only tell us what we need to know, but even lend your talents to the execution of the Plan."

"You don't agree."

"Of course not. El Alvarez is intelligent and dedicated but he has never been a soldier. He doesn't know enough about pain. He will not believe what I tell him about the kind of person you must be. He thinks he can reach you."

"He may be right."

Julio smiled wanly. "Name a price."

He thought. "I have been—what I am—"

"You can say 'prime operator.' Some things we do know."

"—a prime operator, then, nearly half my life. I've been shot and knifed and burned and, in general, have been treated poorly so many different ways and times that I'll have to admit that in a way you're right. I have no illusions left and few emotions."

Otto smiled and knew how ugly the gesture looked. "But I was really sentimental about my left upper molar; it was the only real

tooth I had left. So, a deal: if you bring that man here who pried my tooth out and cut his throat in front of me, I might talk business."

"Do you know which one he was?"

"No."

"Very well. Orderly!" A young man jogged over, snapped to attention. "Bring me Tenientes Yerma and Casona. And a sharp knife—" He thought. "Detail yourself a squad and bring them bound."

"Sir." Click, about-face, jog.

"You're serious," Otto said.

"About killing them, yes. As to influencing you, I suspect it will not, but—I promised el Alvarez I would try. Besides, both of them disgust me. They are *mariposas*, the dear boys. And they enjoy other people's pain too much."

You hate to see that part of yourself reflected, Otto thought. "If you know that I'm a prime operator, then you must know what kind of trouble will follow from killing me."

"It's a calculated risk."

"An easy calculation to make. Killing me is an extravagant gesture, rather like assassinating an ambassador. And you're going to do that, too."

"Probably."

"The very least that will happen is brainwipe for el Alvarez and you and everyone else of high rank. And if you drop one bomb on Grunwelt, you've forfeited the des-

tiny of your whole planet. You know about October."

"It's a myth."

"It is not. I've been there."

"Really." He sat down again, propping his chin on a cupped palm. "Did you find it amusing? Instructive?"

"You might find it instructive. No form of animal life more complex than a cockroach survived. The cockroaches have become very large and aggressive."

"You're saying that the Confederation would be so outraged over our killing a very few people that they would murder an entire planet." He laughed. The sound had a forced quality.

"The Confederation doesn't murder." *Oh really?* "They released a virus into October's atmosphere that sterilized every female, from fish to mammal."

"So they only murdered the ones who lived long enough to starve."

"They supplied food. As a gesture. Men can live on plants and bugs."

Julio yawned. "I wouldn't mind being sterile. Three children are sufficient."

"Don't be stupid."

Julio smiled. "Don't be insulting."

They sat silently for a minute. "When do I see el Alvarez?"

"He is very busy. You may see him before you die."

"You have a very primitive sense of theater, Julio."

"True." He laughed. "But a captured audience."

THE orderly returned with six armed men and the two interrogators, their arms tied behind their backs. The two tenientes led the procession, erect but very pale.

The orderly handed Julio a thick-bladed butcher's knife. "Good morning, Bernal. Romulo." He slapped the handle in his palm, rhythmically.

One answered weakly; the other opened his mouth and his teeth chattered.

"Which of you pulled this gentleman's teeth? It would please him to see your throat cut."

"I would be satisfied," Otto said, "to see them lose a few teeth themselves."

The one who had spoken earlier said, "We both did, Commandante."

"Hmm." Julio looked thoughtful. "Orderly—see if there are pliers in that desk over there."

He returned with a chromed surgical instrument that looked as if it might do the job. "Will this do, Commandante?"

"We can only try. Romulo, you may test the equipment on Bernal." He gestured to the orderly. "Untie him."

The interrogator took the tool and faced his partner, talked to him the way one talks to a child. "Open your mouth, Bernal." And

whispering: "Be brave."

Bernal gave one small cry of pain when the first tooth came out. Romulo looked at Rubirez, who nodded, and bent to take out another.

"Well?" he said to Otto.

"Well what?"

"I've displayed my good faith. Now will you answer some questions?"

"You've displayed something. No."

He nodded, blankly. "Orderly. Call the prison compound and tell them I want de Sanchez and the woman Eshkol."

Bernal was losing his third tooth, not making a sound although tears coursed down his face. Rubirez said, "Oh, Romulo—"

The man looked up and didn't even have time to blink. The butcher knife hit with enough force to cut his neck half through. The soldiers and Otto flinched at the sudden spray of blood. Rubirez snatched the dying man by the hair and jerked him down, then hacked savagely twice, then gave a third studied blow that separated the head from the body. He held it dripping over Otto's bed.

"One more?" There was absolutely no expression on his face; no emotion in his voice.

Otto choked back sudden bile. "No. That was an adequate demonstration—of—"

"My primitive sense of theater?" One of the soldiers ran for the door.

"Private Rivera. Come back or you will be punished." The private slowed for a second and ran on. The Commandante returned his gaze to Otto, but didn't say anything. The only sounds were the private's echoing footsteps and a faint rustling that Otto knew was the headless body, moving. Bernal fainted.

"You may all leave. Take this garbage with you."

A DEAD man is much heavier than a live one. It took only one man to carry the unconscious Bernal, four to drag out the body. The orderly carried the dullstaring head to the door, set it outside and posted himself.

"Now, Colonel. Shall we try to get down to business again?"

"If you think you've impressed me, you're wrong. I've known many ruthless men."

The Commandante moved to the side of Otto's bed and laid the point of the knife against his throat. Blood still dripped from the blade and his right arm was hot crimson from the hand to the elbow.

"I'm getting tired of your *machismo*, Colonel." Otto could move his head but knew it would be useless.

"Really? I'm vastly entertained by yours." The Commandante, livid, jerked the knife away. Having lived to see that expression on Julio's face, Otto knew he would live as long as el Alvarez ordered it.

The orderly escorted Rachel Eshkol and Octavio de Sanchez into the room, then returned to his post at the doorway. Rachel was white-faced but composed; Otto assumed that the head had been removed from the corridor. Both of the prisoners were clad in baggy gray fatigues and had their hands tied behind their backs. Octavio still looked used, but Rachel hadn't yet been harmed. She gasped when she saw Otto.

"I wanted the two of you to see what we've done to your prime operator," the Commandante said, "so you won't have any illusions about your own diplomatic immunity."

"I haven't doubted for a second that you can kill us," Eshkol said through clenched teeth.

"You are all so full of heroism," Julio said, fingering the edge of the bloody knife. The woman saw it for the first time and stifled a scream. "So little perturbed at the prospect of—"

"What has he been doing to you?" She stared at the blood spattered on Otto's bedclothes.

"Nothing to him, young lady," the Commandante said. "He asked for a man's life and I gave it to him."

"Is that true?" she asked Otto.

"No."

"But it is," said Julio.

"You two could get along very well together," she said bitterly. "You are a matched set."

Julio laughed pleasantly. "Women have no appreciation for politics." He addressed Octavio. "Isn't that right, Teniente?"

Octavio looked at him uncertainly. "This means—"

"That's right." Julio stepped behind the battered man and sawed through his bonds. "The masquerade is over." He said, "Let me present Teniente Octavio Madero. He has been a good soldier under my command for over five years."

"Octavio," Rachel said with a falling tone.

"The obvious," said Otto. "That clears up a few things."

"Indeed," the Commandante said. To Eshkol: "Now you have no one. Your colonel is a brutal sadist and your confidant, a traitor. We'll allow you a few days to think this over. While we decide what to do with you."

He called the orderly over. "Orderly, this man holds the same rank as you," indicating Octavio, "but I want you to be his orderly for a week or so. While he recovers from indignities suffered for the good of the Plan." Rubirez glared at Otto. "And in spite of your ministrations, I have back my trusted Ramos Guajana. His recovery saved you from a most vile death."

Julio dismissed Octavio and the orderly with a wave of his hand. He took Eshkol's shoulder and gently pushed her toward the door.

"After you, my dear."

MEDICINE on Selva was only about a half-century out of date; in four days Otto was able to walk with little difficulty and his fingers and arm were knitted. As a sign of his continuing clinical progress they put him back in the jail.

It was a different cell. There was no window and the door was a solid sheet of thick steel that slid silently on hidden bearings. Indirect lighting and freshly stuccoed walls. The only smell was a faint memory of disinfectant. There was a tidy commode in one corner, next to a basin. The double bunk was smooth plastic with fresh linens; Rachel Eshkol lay on the bottom bunk, studying the underside of the top one. She didn't make any sign of noticing as the door slid shut behind Otto and locked with a heavy *click*.

"Our quarters have improved," he said.

"Have they treated you well?" he said.

"I know you detest me," he said. She continued to stare straight ahead and Otto crossed the room, tested out the water faucets.

"Which one are you?" she asked.

"All Otto McGavin. I haven't seen Guajana since they started torturing me. The overlay can't have worn off so soon—it's never happened before, but evidently there's an escape reaction. Since

the overlay no longer functions—"

"If you're that one," she said, still not looking at him, "tell me what was the first thing you did when I turned on the lights in your room at the Vista Hermosa."

He thought. "I checked the swords on the wall."

"All right." She swung slowly to a sitting position and looked directly at him. "Yes, our quarters have improved and no, they haven't treated me well. And I can't detest you very much any more because there are too many others. Myself. Rubirez. Others."

Otto sat down on the commode and started to say something.

Rachel spoke first. "I hate myself for what I've done to the Confederation and to this beautiful planet and even to you. In my ignorance I betrayed the Confederation and doomed this planet to the fate of October. And brought about your death—I'm sorry." All this in a calm monotone.

"I'm not yet dead." The words sounded false to him.

"Yes, you are. So am I. We walk and talk and yet we are dead and already starting to rot."

She had the helpless, dull look of a mortally injured animal, but there was no mark on her. "What have they done to you?" he asked gently, thinking he knew.

"Really," she said, standing slowly, steadying herself with a hand on the upper bunk, "it's not important." She pulled the draw-

string on her trousers and they rustled down her flanks. With surprisingly nimble fingers she undid the snaps of her tunic and shrugged it off, then stepped out of the trousers. There was a little spark of defiance in the way she faced Otto; legs apart, fists clenched at her sides—her body was as perfect in shape and tonus as Otto had imagined it, but from ankles to shoulders was a mottled pattern of violets and blues and browns; hardly a square centimeter of her skin, where it had been covered by clothing, was not bruised. She turned to show Otto that they had done the same on her back and buttocks and the backs of her legs; all except for an exact area over each kidney. They hadn't wanted to kill her.

"Every day. Sometimes three or four times." Her voice cracked and she folded her arms on the upper bunk and buried her face but didn't cry. "Rubirez and that—Octavio man or Guajana—" Otto crossed and picked up her tunic and tried to drape it over her shoulders, but it wouldn't stay, so one at a time he took her hands and guided them into the sleeves of the tunic. She sat heavily on the bed and winced, then folded her hands in her lap and slumped, staring at the floor. She continued: "They—they put handcuffs on my wrists and—"

"Please," Otto said. "Don't talk about it." He stooped and picked

up the gray trousers. "Take these and—"

THE door slid open and Rachel tried to cover herself with her hands.

"Well, well," said the jailer. "You two didn't waste any time." Otto was halfway to him when he saw the pistol and halted. "I'd think she would've had enough of that." The man threw a bundle of white clothing at Otto. "Put on these, both of you. Now."

Otto separated the smaller items and gave them to Rachel. She turned her back to the jailer and dressed. Otto stood as close to the jailer as he thought prudent and threw his old tunic and trousers at him as he took them off. The jailer jeered and made some pointed remarks about Otto's physiology.

The jailer gathered up the gray clothing. "You're going to have visitors soon. Try to behave until then."

They sat on the bed together. Otto almost reached out to pat her hand, didn't.

"They've never given me a white outfit before," she said. "Maybe this is the way they dress you for public execution. In a way I hope so."

Otto knew that if they were going to be executed the executions would be private affairs.

They sat for what seemed like a long time, neither wanting to talk, lost in private thought. Otto won-

dered, not for the first time, where along the line he had lost the fear of death—the respect for death. Was it just part of his conditioning? That would seem anti-survival and prime operators were too valuable to the TBII for them to program out the will to live. Maybe it was simply that familiarity bred contempt.

With some effort of will he thought back to his youth and childhood, trying to recall some incident, some bit of knowledge or disillusionment that eventually led to the invisible army he had joined; that led to this jungle planet and sharing a white mausoleum with—he analyzed the brittle affection he felt for Rachel Eshkol and knew pretty exactly which part of it was sexual and which the somatic sympathy of one injured body toward another; which part was atonement for the way he had acted as Ramos and which was retroactive yearning for other women he had loved or once had thought he loved. And some dark growling part of what he now felt was probably the cornered beast's obeying the instinct to take one more chance on the procreative raffle before it was too late. He remembered a boy named Otto McGavin at temple trying his best to meditate while the acrid incense tried to tickle him into sneezing and what a hell of an Anglo-Buddhist he had turned out to be, killed for a living and facing death with no desire for spiritual prepara-

tion beforehand—or was that what he was doing? No. What Otto was doing expressed the closest thing to a panic reaction he ever permitted himself.

At age twenty Otto had entertained a conceit about "dying well." He tried to remember how that felt.

THE door slid open and nine people came in, in file. The first was Julio Rubirez. The next was an old man. Then Ramos Guajana, followed by a squad of six soldiers. Everybody was armed except the old man and one of the soldiers, whom Otto recognized as Private Rivera, the boy who had run from Rubirez's grisly demonstration. Behind a transparent dressing on the side of his head was a fresh stump where his right ear had been.

The old man looked familiar and Otto remembered who he was just before Rubirez introduced him.

"El Alvarez wants a word with you two." Julio turned to the old man. "One last time, sir. This man is the most dangerous, desperate—"

"Enough, Julio. Just leave me your pistol."

Julio handed over the gun. "At least let me handcuff them."

The old man nodded. Rubirez handcuffed Otto's right wrist to Rachel's left. Then everybody except el Alvarez filed out and the door clicked shut behind them.

El Alvarez looked around, decided against the indignity of sitting

on the toilet and stood opposite the two, leaning against the wall, the pistol pointed loosely in their direction.

"I asked twenty-some years ago that this cell be built. It is the only cell in the complex that has no cameras and no microphones hidden in it."

"Or had none twenty years ago," Otto said.

El Alvarez shook his head. "I had a trusted person go over it thoroughly last week."

"You have things to tell us," Rachel asked, "that you don't wish known by your own espionage people?"

The old man didn't answer directly. "How many people on Selva do you think know about the Plan?"

"That would be hard to say," Rachel answered. "Everybody seems to have heard rumors."

El Alvarez nodded and smiled. "That's part of the Plan itself. Actually I suppose only one out of a hundred or so Selvans knows there is a truly concrete Plan. Most of them belong to Clan Alvarez or are powerful members of their own clans. We haven't yet made a public statement about the Plan because we don't want to encourage responsible public debate." He paused expectantly, but neither Otto nor the girl said anything.

"I believe your Confederation doesn't think it could possibly work."

"That's—"

"Quiet!" Otto snapped.

"I've read your orders, Colonel," Alvarez said wearily. "The ones that were in Ambassador Eshkol's safe. In that regard you have no secrets to protect."

"At any rate, the Confederation is quite right. Oh, we could deliver a few bombs to Grunwelt—we could destroy a few cities and millions of people, perhaps. But I know and you know that war is more than just piracy on a large scale, which is what the Plan distills to. We simply don't have the economic resources, not by a factor of a thousand, to maintain a war with Grunwelt—even if the Confederation were not to intervene. We could start a war, but Grunwelt would finish it at its leisure."

"I don't see why you're telling us all this," Otto said.

"It will become clear."

"ONE thing that is clear—" Osborn was creeping into Otto's voice—"is that our analysts were right. You're willing to gamble the destiny of an entire planet in some convoluted scheme to get more power."

"No. If I enjoyed the exercise of power I would seek to preserve the *status quo*. No one on this planet is more powerful than I am. Except perhaps you two. Which is why I've brought you here, of course."

"You haven't gone out of your

way to make us sympathetic," Rachel said and Otto knew her just well enough to detect the leading edge of hysteria.

"I will need your help," el Alvarez said, "the Confederation's help. But first I need your understanding." He looked at Rachel. "Not your sympathy."

"The Confederation does not meddle in the internal affairs of its member worlds," said Otto. "Except when those affairs—"

"I know," el Alvarez interrupted. "I may know the Charter even better than you do. Briefly: what we call 'the Plan' is only one part of a larger scheme. You are also part of that. It was laid out in some detail by my great-grandfather over a century ago. Juan Alvarez the Second, a political scientist and—a visionary. A practical man, but a dreamer.

"Selva was colonized by dreamers, you know. Political exiles from Terra who brought with them an idealistic form of communism. It didn't last ten years—they hadn't been properly prepared for survival here.

"Five strong men took over and actually, I suppose, saved the colony from extinction. But these five governed in a brutal, arbitrary way. When their heirs succeeded they didn't change methods—in a crude way, this is how the balance of power was preserved. People who rebelled were either killed or, if they were strong, braved the out-

side and took other rebels with them and established rival clans. Eventually the brutality and capriciousness became institutionalized and, inevitably I suppose, filtered into the conduct of daily life at every level. Do people routinely settle arguments by dueling on any other planet?"

"I don't think so," Rachel said.

"No," Otto said.

"That's one example. There are others. The sum of it, though, is that our way of life is in almost every respect a healthy millennium behind that of any other culture in the Confederation."

"I quite agree," Otto said sourly.

"And it has a built-in stability through the method of succession." He seemed now to be pleading rather than explaining. "But Juan Alvarez II devised a way to subvert that stability."

"And to implement this you need help from the Confederation?"

"That's right. We—"

"Weapons? Money?" *As if I were in a position to make promises*, Otto thought.

"No—well, a little money, maybe. Let me explain. Juan Alvarez the Second suggested that we need set up only a few initial conditions, not obviously revolutionary changes, in order to shift the base of power gradually away from the clan leaders, eventually transform them into powerless figureheads."

"What could you possibly have to gain by all this?" Rachel asked.

“YOU would have to be in my position truly to understand. Most Selvans are reasonably content with their lives because they know no better—their educations and the information they receive about other worlds are carefully controlled. I was educated off-world—as part of Juan the Second’s Plan—and I feel, have always felt, dissatisfied. Every bit as manipulated—and helpless—as are my subjects. That I am ruled by a half-a-thousand dead men, rather than one live one, makes no difference.”

“Very poetic,” Otto said. “Specifically. What initial conditions?”

“These will be disguised by our preparations for the hypothetical war. Clan Diaz is building a fleet of Foster-type freighters. We are calling them bombers.” Otto vaguely remembered that a Foster drive was a reaction jet powered by fusion of deuterium. Ancient history. “Unfortunately they will not be finished in time. To preserve the element of surprise, we will have to attack when the planets are closest—and the next opportunity will not be for five years.

“So for the next five years we will have a fleet of new ships and it will not be unreasonable to suggest we make some money with them. Such commerce as goes on between Selva and her sister planet is almost totally controlled by Grunweltische shipping and tourist firms—we can underbid them and still make a good profit.”

“I begin to see,” Otto said.

“See what?” Rachel asked.

Alvarez made an animated gesture, forgetting the gun in his hand—Otto ducked instinctively. “This way we will have formed a new social class of interplanetary merchants—who will be the only ones with access to wealth outside of our own closed economic system! Each clan will see the fortune to be made and none will be able to afford *not* to—”

“Wait, wait,” Otto said. “I see something else. The closest thing to a spaceport on this planet is barra de Alvarez.”

“That’s right,” Alvarez said impatiently.

“So you will be getting first crack at the money—tariffs, docking fees—”

“No, no—that’s part of the plan, too. I will be in a position to encourage interplanetary trade by taking as little—”

“As little as you could and not appear suspicious,” Otto said blandly.

“That’s correct,” he said with flinty pride.

“I’m no sociologist,” Otto said. “And when I studied interplanetary economics . . . I don’t remember learning about anything one-tenth this bizarre. It’s about the shakiest recipe for social reform I’ve ever heard.”

“I know my people.”

“And what do you need from the Confederation?”

"Mostly advice. And that they not react too quickly if they hear rumors of war. As you say, Colonel, you're not a sociologist, but I'm sure the Confederation has many good people who are. And economists and propagandists and psychodynamicists and—whatever. People who could review Juan Alvarez's plan, update it and insure that it would work."

Otto shook his head. "That sounds contrary to the policy of self-determination."

"Your presence here implies that the policy is flexible, Colonel." El Alvarez smiled. "Besides, the Plan is home-grown. We would only want the Confederation to help us polish it, as I say."

Rachel asked, "Are you saying that the clan leaders would eventually become dependent on the new merchant class and then be ruled by it? Even though the merchant class would have only economic power?"

"Yes. Again—I know my people."

"Your people," she said, her voice starting to shake, "I don't think are subtle enough to respond to that kind of pressure." She pulled the hem of her blouse up a few centimeters, showing the bruises. "Your people abused me several times a day and beat me without mercy—just for amusement; no pretense of interrogation. I think you are overrating Selva if you think it will be ready for civili-

zation within the next few hundred years."

"I'm sorry. More, I am outraged. But please try to understand—"

"I think I understand more than either of you do."

"No, I mean—you couldn't be protected. Nor you, Colonel. I am surrounded by suspicious men and—"

HE WAS interrupted by the door's sliding open. Julio Rubirez walked in, leading the whole entourage, guns ready.

"I didn't summon you," el Alvarez said.

"But you did, sir." Ironical emphasis on the "sir." Julio scraped a place on the wall with his thumbnail; thin stucco flaked off, revealing a metal microphone plate. "Drop that pistol, whoever you are."

El Alvarez gauged the faces of the men covering him and dropped the gun.

"This man is an imposter," Julio said to the soldiers. "As good a copy of our beloved Alvarez as the man on the bunk is of Teniente Guajana."

Guajana picked up Alvarez's pistol and handed it to one of the soldiers.

"I promise I will find out what he has done with our leader."

The soldier to whom Guajana had given the pistol was already holding a rifle with both hands. He found it awkward and, not think-

ing, passed the pistol to the only man in the squad who had a free hand: Private Rivera.

"And as for these two—" Julio leered at Otto and Rachel and raised his gun.

Private Rivera slipped the safety off the pistol, held it to the back of the Commandante's head, and fired. Julio was still smiling as his dead body pitched forward.

Otto hit the floor, taking Rachel with him, and scooped up the Commandante's pistol with his left hand. Guajana had just unholstered his own gun and was about to shoot Private Rivera pointblank when Otto fired and opened up the near side of his likeness from hip to ear.

"Drop it drop it!" Otto yelled and all of the soldiers except Rivera dropped weapons mostly still on safeties.

"You too, Private Rivera," Otto said quietly.

Rivera let the pistol slip from his fingers and raised his hand to touch the stub of his ear.

"I'm confused," he said. "What happened?"

"The first shots of a war," Otto said. "And maybe the last."

Terran Bureau of
Investigation & Interference
MEMO
Secrecy Class 5

TO: Planning
FROM: J. Ellis, Ph.D.

RE: Debriefing agent McGavin (S-12, prime), mission SG-1746.

Following documents submitted:

1. Debriefing transcript.
2. Agent's written report.
3. "The Juan Alvarez II Plan." by Jose Alvarez III (described in documents [1] and [2]).
4. Various documents pertaining to leave problem.

IT IS my opinion that document [3] indicates a follow-up mission. Agent McGavin disagrees—I request that he not be assigned to this mission. An edited copy of this document may be of interest to the appropriate Confederation Committee.

Agent McGavin was two weeks late returning from this mission. He claims to have accompanied his local TBII liaison, who suffered a nervous breakdown in the execution of this mission, to a nearby planet for rest and medical care, and submits documents in evidence. He claims further that this period should not be deducted from his annual leave, since he and the liaison were married for that two-week period. This would make his absence deductible from sick leave. Please forward documents [4] to his section leader.

(signed)

John Ellis, Ph.D. *

PASSAGES



CHRISTMAS stories in the store windows
at Christmas to put the inside outside
and the outside inside. I fancied myself in
one of the dolls once—a skating scene, all
snow and tinsel, a Regency ballroom's
miniature chandeliers and snowlike mir-
rors—but if I had changed places with my
doll, her oval neck, her pretty, flushed face,
her fan, I would have found myself not
enchanted and not in the woods, but stuck
into the refuse of a painted stage, with
lights in my eyes and nails driven into my
waist, with the too-large wooden head of
another doll, quite coarse and dead, next to
mine. (To go inside while still remaining on
the outside!) So I hopped out of the window
as quickly as I could and ran down Fifth
Avenue like the Pudding Boy on little
wooden feet, leaving behind an umbilicus of
protoplasm stretching back into the win-
dow.

'Oh, the maddening whiff I had of those
huge, God-tormented, driven creatures with
their passions and their flesh and their
appetites and their eye-sockets! You can't
even tell where they end; their skin is wet
and it sheds. They look like dolls without
even trying. I was brought back at once, of
course. So I put myself into a tolerable
frame of mind by imagining that I actually
was what we must look like to a doll inside a
window display, but this is (for her) a kind of
window display, too, with no back and you
really can't get into it. So we ended up star-

Some Seasonal Thoughts by
JOANNA RUSS

ing at each other quite hopelessly.

Oh, wouldn't I like to be *you*! she said.

Oh, wouldn't I like to be *you*! I said.

Not if you knew, we both said.

I think we had actually worked something out by the day before New Year's; at least our signals had become more humanized: but she was dismantled on December 30 and I never saw her again. Borne away shrugging cynically: "Dull, dull, *dull*!"

Or was she crying? I hope, of course, that she is being kept for another year, wrapped up safely and luxuriously, etcetera. The sweet smell of a lumber room. Dreaming and drowsing, my other small self, in the gloaming.

We might have done it, even so; we might have made the exchange without bashing our heads against the glass: she through the fish-tank of a window, misted over with the cold, our huge, watery eyes, our swimming fur hats, myself into the enchanted forest, the snow made of soap, the snow made of tears. To put all one's energies into the trembling interface between appearance and appearance, to look back at that single, thin, conscious thread hanging between oneself and the disk of a stranger's face hovering beyond the glass, and then to take that thread and—

Listen, love, in your cocoon: Imaginary creatures exist only from the front.

Do you believe me?

If you do—does it help?

★



*The computer was programed
to scatter Man among the
stars—especially one man!*



SURVIVAL COURSE

NEAL BARRETT, JR.

VIVID pictures oscillated across Martin's mental screens:

He was a warm pearl in a giant oyster. The oyster was squeezing him to death with dank passion . . .

He was in the last crushing seconds of foetal agony. Damn! Mother should never have had children . . .

An inchworm. Inside a great pea. Bam! Cook snapped him cruelly from the pod . . .

The last, he decided, was close enough to the truth. Something very bad had happened to the ship. Something fatal. The escape capsule had imploded its fleshy walls, formed a Martin-sized cocoon and ejected him from whatever catastrophe lay behind. Now—

ABLE MARTIN.

"What?" Martin tried to move his head. Abruptly the walls sucked themselves back into place. Martin rose weightlessly from his form-couch, pulled himself back, snapped himself down.

MARTIN.

"Who's that?"

SHIP'S COMPUTER, MARTIN.

"Oh."

ARE YOU INJURED IN ANY WAY?

"No. What happened?"

THE SHIP HAS BEEN DESTROYED. YOU ARE ABOARD ESCAPE CAPSULE FORTY-TWO.

Martin waited for more. Evidently direct questions were required. "Did we hit something? No, that's not likely, is it? How did it happen? Did anybody else get off?"

Ship's computer was silent. Martin shrugged, inspected his surroundings. There wasn't much to see. The capsule was spherical. Spongy amber walls. No ports. A single safe-light to his right. Maximum distance from one wall to another, roughly two-and-a-half meters.

And he was—where? Deep space. Between Wolf's Star and Jefferson. But that didn't mean a thing, really. He knew that much. The ship had been in Warp when whatever happened had happened—it could have been tossed into reality nearly anywhere. If he was now remotely near either Wolf's Star or Jefferson it would be a universally large coincidence.

MARTIN.

"Right here."

THE SHIP WAS DESTROYED THROUGH A MALFUNCTION IN THE DAVIDSON AUXILIARY REGULATORS. ESSENTIALLY, INTERFERENCE FROM AN UNANTICIPATED MASS CAUSED A SUBSEQUENT MISALIGNMENT OF THE DRIVE FIELDS, WHICH EJECTED THE SHIP FROM NONSPACE AND DESTROYED IT WHILE ITS WARP ENGINES WERE STILL PARTIALLY FUNCTIONING.

"Oh," said Martin. He had no idea what the computer was talking about.

CHANCES AGAINST SUCH A MALFUNCTION ARE EIGHT TO THE TENTH POWER. THERE ARE NO SURVIVORS OTHER THAN YOURSELF.

Martin winced at that. "Nobody

got out? There were two hundred and fifty people aboard."

TWO-HUNDRED-FORTY-SEVEN, the computer corrected. EXCLUDING YOURSELF. WHY WERE YOU IN ESCAPE CAPSULE FORTY-TWO WHEN THE SHIP WAS DESTROYED?

Martin was taken aback. "Huh? I was taking a nap. Why do you ask?"

IT IS UNAUTHORIZED TO ENTER THE ESCAPE CAPSULE UNLESS AN EVACUATION ORDER HAS BEEN ISSUED OR ENTRY PERMISSION HAS BEEN GRANTED.

"Look—"

IF YOU WISHED TO TAKE A NAP, MARTIN, WHY DID YOU NOT UTILIZE THE BUNK IN YOUR CABIN?

"I don't know, I was tired. The capsule was handy. It seemed like a good idea at the time. Listen—what difference does it make now?"

OCCUPYING AN ESCAPE CAPSULE WITHOUT AUTHORIZATION AND/OR RECEIPT OF AN EVACUATION ORDER IS A PASSENGER VIOLATION. THE VIOLATION WILL BE RECORDED.

Martin laughed out loud.

NOT UNDERSTOOD, said the computer. WHY DO YOU EXPRESS DISINTEREST IN THE REPORTING OF THIS VIOLATION?

"Forget it," said Martin. He was getting fed up with the computer's rational ramblings. And worried. There were things he needed to know. Important things. *Where are we and where are we going? When does help arrive? How much air is aboard? Food? Water?*

HE ASKED the most important question first. The answer set his heart thumping against his chest.

"That's all? Eight *days*?"

APPROXIMATELY, the computer told him.

"I don't want approximately, I want exactly!"

EXACT OXYGEN REQUIREMENTS FOR A PERSON OF YOUR PHYSICAL STRUCTURE, MARTIN: ONE HUNDRED NINETY HOURS, PLUS OR MINUS ONE HOUR. CALCULATED FOR NORMAL WAKING AND SLEEPING PERIODS, WITH MINIMAL ACTIVITY.

"Holy Christ," Martin muttered.

YOU NEED NOT BE CONCERNED WITH OXYGEN CONSUMPTION, MARTIN.

"No?"

NO. THE SUPPLY IS MORE THAN ADEQUATE FOR THE DURATION OF YOUR ANIMATE PERIOD.

Martin sat up. "My *animate* period?" Short hairs climbed the back of his neck. "What's that supposed to mean?" He remembered something. "Listen—you're talking about putting me under—something like that. So I'll use less oxygen? Great. I—"

The computer droned: I AM REQUIRED TO STATE CERTAIN FACTS. PLEASE HEAR THEM BEFORE YOU COMMENT FURTHER. ONE: EACH STANDARD ESCAPE POD, MOBILE (SEPM), IS EQUIPPED WITH AN ADEQUATE LIFE SUPPORT SYSTEM. THIS SYSTEM INCLUDES

OXYGEN—WHICH WE HAVE DISCUSSED—CONCENTRATED FOOD STAPLES, WATER AND A NUMBER FOUR MEDI-PACKET, MODIFIED. TWO: ADDITIONALLY, BASIC PLANETARY SURVIVAL GEAR IS AVAILABLE SHOULD THE CAPSULE AND ITS OCCUPANT BE RELEASED IN THE VICINITY OF A PLANETARY BODY CAPABLE OF SUPPORTING HUMAN LIFE. THE CAPSULE IS DESIGNED TO ACCOMPLISH A SINGLE LANDING ON SUCH A BODY UNDER NORMAL CONDITIONS. THREE: THE CAPSULE IS ALSO EQUIPPED WITH A STANDARD REIMAR SEVEN-O-TWO BEACON TRANSMITTING DEVICE (BTD), CAPABLE OF EMITTING A THREE-STAGE TRANSLIGHT EMERGENCY SIGNAL WITH A RANGE OF FIVE-HUNDRED LIGHT-YEARS. THE BTD TRANSMITS A CONTINUOUS HOMING PATTERN FOR A PERIOD OF ONE STANDARD YEAR.

Martin waited. The computer remained silent. He felt immensely relieved. The capsule didn't look like much, but apparently there was more behind its fleshy walls than met the eye.

"This—signal beacon," Martin asked. "How long does it take to reach—wherever it's going?"

THE BTD SIGNAL IS A TIGHT-BEAM TRANSMISSION WHICH BOOSTS AN EMERGENCY 'PULSE' AT TRANSLIGHT SPEEDS, AS I EXPLAINED. THE IMPULSE REACHES ITS MAXIMUM RANGE OF FIVE-HUNDRED LIGHT-YEARS IN FOURTEEN POINT SEVEN MINUTES.

Martin let out a breath. "Then it's already there. Someone could have picked it up. They could be on their way now."

NEGATIVE, MARTIN.

"What?"

THEORETICALLY, YOU ARE CORRECT. IF THE SIGNAL HAD BEEN TRANSMITTED—AND RECEIVING DEVICES HAD BEEN WITHIN RANGE OF ITS IMPULSE AND A WARP SHIP HAD BEEN AVAILABLE—AS YOU SAY, 'THEY COULD BE ON THEIR WAY NOW.' HOWEVER, ALL SUCH ASSUMPTIONS ARE NECESSARILY INVALID SINCE NO SIGNAL HAS BEEN TRANSMITTED.

"What?" Martin nearly leaped off his couch, forgetting the safety belt that held him in place. "Look—what the hell are you waiting for? I've got a hundred and ninety hours of *breathing* time, friend—plus or minus whatever I'm wasting jawing with you! Just get yourself—"

The computer interrupted: YOU DO NOT UNDERSTAND. I STATED THAT I WAS REQUIRED TO MAKE CERTAIN FACTS KNOWN TO YOU. THESE FACTS CONCERNED THE CAPABILITIES OF THE ESCAPE CAPSULE. 'CAPABILITY' IS DEFINED AS 'HAVING THE CAPACITY OR ABILITY.' IN OTHER WORDS, THE ESCAPE CAPSULE IS EQUIPPED TO PERFORM AND/OR SUPPLY THE AFOREMENTIONED SERVICES. UNDER CERTAIN CIRCUMSTANCES, FOR EXAMPLE, THE BTD SIGNAL WOULD BE UTILIZED. UNDER OTHER CONDITIONS, IT MIGHT BECOME EXPE-

DIENT TO EMPLOY PLANETARY SURVIVAL GEAR. AS IT STANDS, HOWEVER, NONE OF THE EQUIPMENT AND/OR SERVICES MENTIONED ARE APPLICABLE TO THIS PARTICULAR SITUATION.

Martin's blood ran cold. *Applicable?* His first impulse was to scream at the computer and beat on the amber walls. What the hell did it care? It was content to stay where it was forever—an electronic half-wit buried in spongy bliss. Its oxygen supply wasn't running out in plus-or-minus hours.

Instead he brought his rapid breathing under control and leaned back on his couch. Not that the computer would care one way or the other whether he was calm or hysterical. Screaming, however, was bound to use up an inordinate amount of oxygen.

Halfwit or not, the computer was there and had to be dealt with.

"LOOK," Martin said easily, "what I think we have here is a communications problem."

I AM EXPERIENCING NO DIFFICULTY IN COMMUNICATING, MARTIN.

"Okay. I am, though. Let's run through it again. You haven't activated the signal beacon. Why?"

AS I EXPLAINED, BTD TRANSMISSION IS NOT APPLICABLE IN THIS SITUATION.

"Why not?"

WHEN THE SHIP WAS DESTROYED IT WAS THROWN OUT OF WARP AND

BACK INTO REALITY. I HAVE MADE EXTENSIVE EFFORTS TO LOCATE OUR POSITION RELATIVE TO INHABITED AND/OR RECORDED QUADRANTS. FROM THIS POINT IN SPACE NO RECOGNIZABLE CONSTELLATIONS CAN BE OBSERVED. I HAVE, OF COURSE, TAKEN INTO CONSIDERATION THE FACT THAT STELLAR PATTERNS DIFFER ACCORDING TO ONE'S POSITION. ADDITIONALLY I HAVE MADE SPECTROSCOPIC ANALYSES IN AN ATTEMPT TO IDENTIFY A FAMILIAR CLUSTER OR UNIT. RESULTS: NEGATIVE.

Martin's heart sank. "In other words, we're lost."

RELATIVE TO MY RECORDED KNOWLEDGE, YES.

A thought suddenly struck him and he sat up straight again. He weighed his words carefully. "Do you believe your—navigational records are wholly complete?"

NOT UNDERSTOOD, MARTIN. 'WHOLLY COMPLETE' IN WHAT SENSE?

"In the sense that you have data on all planets and star-systems that have been discovered, all areas of space that have been mapped and explored."

TO A LARGE EXTENT, YES. WHEN I WAS ON THE SHIP NEW DATA WERE CONTINUOUSLY PROGRAMED INTO MY BANKS IN AN EFFORT TO MAINTAIN COMPLETE AND ACCURATE NAVIGATIONAL RECORDS. LOGICALLY, HOWEVER, IT IS POSSIBLE THAT DATA EXIST THAT HAVE NOT BEEN MADE AVAILABLE TO ME. I

HAVE NO DEFINITE BASIS TO CONCLUDE OTHERWISE.

Martin took a deep breath. "Then—logically—a signal from our position *could* be received."

IT IS CONCEIVABLE.

"Then transmit the signal," Martin said firmly. "If there's any chance at all—"

NEGATIVE, MARTIN. THE ODDS ARE ASTRONOMICALLY HIGH AGAINST RECEPTION.

"To hell with the odds!" Martin struck his fist against the couch. "My odds are zero unless you do something!"

NEGATIVE, MARTIN. I WILL NOT ACTIVATE THE SIGNAL BEACON.

Martin eyed the blank walls narrowly. "I'm not asking—I'm *telling* you. I'm a—a human and I'm giving a machine an order."

PERHAPS IT WOULD BE HELPFUL IF YOU FULLY UNDERSTOOD THAT THERE IS A DIFFERENCE BETWEEN A COMPLEX COMPUTER SYSTEM BASED ON THE PRINCIPLES OF LOGIC AND A SIMPLE SERVING ROBOT. ALTHOUGH I AM RECEPTIVE TO CERTAIN COMMANDS, I AM NOT PROGRAMED TO OBEY YOU BLINDLY UNDER ALL CIRCUMSTANCES. MY BASIC FUNCTION IS TO INITIATE LOGICAL ACTIONS BASED UPON AVAILABLE DATA. WHILE IT IS TRUE THAT THERE IS A POSSIBILITY THAT A SIGNAL BEAMED FROM THIS POSITION MIGHT BE RECEIVED THE ODDS—AS I EXPLAINED—ARE OVERWHELMINGLY NEGATIVE. ACTIVATING THE SIGNAL WOULD

INVOLVE THE DISSIPATION OF AN IMMENSE AMOUNT OF ENERGY. CONSIDERING THE ODDS, SUCH AN EXPENDITURE WOULD BE UNNECESSARILY WASTEFUL.

Martin dropped his head to the couch. "Look," he said wearily, "what am I going to do with all that immense amount of energy when I'm *dead* eight days from now? Will you explain that to me. Please?"

HE LET out a deep breath and looked at the amber walls. "Listen, I said a minute ago we had a communications problem. No. I do. You know my name, so you also probably know from the passenger roster what I do. I'm a heavy-equipment salesman. I sell things to people who want to dig up mountains and build bridges. All of our stuff is fully automatic—you can program it to do anything you want it to do. Only, that's not my end of the business. I know how to stick the tape in—period. What I'm saying is, I'm not used to talking to computers. I simply don't understand why it seems—and I'm not saying it's true—but it *seems* as if you're not making every effort to get me back to civilization before my air runs out." Martin shook his head. "I don't understand that. If you're not going to activate the signal—what are you going to do?"

An idea suddenly occurred to him. "A minute ago you said something about how I wouldn't need all the oxygen on board. That

it would be—what? 'Adequate for my animate period?' Is that what you've got in mind—putting me in some kind of deepsleep or something? We didn't get back to that."

YOU MISUNDERSTOOD, MARTIN. THE WORD 'ANIMATE' IN THE SENSE IT WAS USED, CAN BE DEFINED AS 'POSSESSING LIFE,' OR 'LIVING.' WHAT I SAID WAS THAT 'THE SUPPLY IS MORE THAN ADEQUATE FOR THE DURATION OF YOUR ANIMATE PERIOD.' BY THAT I MEANT THAT PRIOR TO THE TIME WHEN YOUR AVAILABLE OXYGEN SUPPLY WOULD ORDINARILY BE CONSUMED YOU WILL BE IN AN ESSENTIALLY NON-LIVING STATE, AS FAR AS PERSONAL COGNIZANCE IS CONCERNED.

Martin felt something terrible clutch at his stomach. "For God's sake—what are you talking about? What are you going to do to me?"

I ASKED EARLIER THAT YOU ALLOW ME TO PRESENT CERTAIN FACTS. YOU HAVE, HOWEVER, FREQUENTLY ALLOWED YOUR EMOTIONS—

"Damn you!" Martin shouted. "I'm alive! I'm supposed to have emotions!"

ASSUREDLY. AS I STATED, THE STANDARD ESCAPE POD, MOBILE (SEPM), HAS CERTAIN CAPABILITIES. I ALSO ATTEMPTED TO EXPLAIN THAT WHILE THE SEPM'S PRIMARY FUNCTION IS TO TRANSPORT HUMAN SURVIVORS TO SAFETY, IF POSSIBLE, THERE ARE CONDITIONS UNDER WHICH—

"Listen," said Martin, "I don't

want to hear any of that again."

—UNDER WHICH THIS FUNCTION IS NO LONGER RELEVANT. EXAMPLES: WHEN NO PLANETARY BODY CAPABLE OF SUPPORTING LIFE IS PRESENT WITHIN THE OPERATIONAL SPHERE OF THE CAPSULE . . . WHEN THE ODDS AGAINST RECEPTION OF A BTD SIGNAL BEAM ARE ASTRONOMICAL. I ALSO EXPLAINED THAT, WHILE I AM RECEPTIVE TO CERTAIN COMMANDS UNDER SPECIFIC CONDITIONS, I AM NOT PROGRAMED TO OBEY ALL INSTRUCTIONS. PRESENT CONDITIONS ARE SUCH THAT I HAVE OVERRIDDEN ALL BUT MY PRIMARY PROGRAMING. I AM INITIATING A SECONDARY LOGICAL ACTION BASED ON AVAILABLE DATA. I WILL EXERCISE THE STELLAR OUTREACH OPTION IN EXACTLY FORTY-FIVE STANDARD MINUTES."

Martin stared dumbly. "You'll what? I don't have any idea what you're talking about."

IT IS QUITE PAINLESS, MARTIN. YOU WILL NOT—

"Painless!"

YOU MUST UNDERSTAND THAT THIS ALTERNATIVE IS QUITE NECESSARY. THE STELLAR OUTREACH OPTION IS NOT EXERCISED UNLESS OTHER CHOICES ARE IMPRACTICAL. IN THIS CASE NO OTHER OPTION IS OPEN. AGAIN, THE PROCEDURE IN NO WAY—

"Wait a minute," Martin said hoarsely. He was scared, bewildered. His head throbbed. The whole thing was a nightmare.

Only one fact was frighteningly clear: the computer had no intention of trying to save his life. For some reason of its own it was going to kill him.

Once he'd let his mind form the words he felt reasonably calm. And it was absolutely necessary for him to remain completely rational. His emotions were meaningless to the computer. If he was going to stay alive he would have to face the computer on its own ground. If he couldn't fight logic with logic—he was dead. It was as simple as that. The computer couldn't have put it better.

"All right," he said calmly, "tell me about the—Stellar Outreach option."

YOUR REASONABLE ATTITUDE IS ENCOURAGING, MARTIN.

"Thanks," Martin said dryly.

THE STELLAR OUTREACH OPTION WAS PROGRAMED INTO THE BANKS OF EVERY SHIP'S COMPUTER AS AN ALTERNATE TO THE ESCAPE CAPSULE'S PRIMARY FUNCTION. ESSENTIALLY: SURVIVORS WITH LOW RESCUE PROFILES—SUCH AS YOURSELF, MARTIN—ARE REAPPORTIONED INTO THEIR CHROMOSOMAL COMPONENTS, ENCAPSULATED IN LIFEBANK DISPERSAL CARRIERS (LDC) AND PROJECTED IN A RANDOM PATTERN FROM THE CENTRAL POINT OF ORIGIN—WHICH, OF COURSE, IS THE ESCAPE CAPSULE ITSELF.

Martin swallowed and stared at the amber wall. "But—why?"

THE PURPOSE OF STELLAR OUTREACH IS TO SPREAD THE SEED OF MAN. IT IS AN ENTIRELY LOGICAL SUB-PROGRAM. THOSE WHO CANNOT SURVIVE IN THEIR PRIMARY FORMS ARE GIVEN THE OPPORTUNITY TO SURVIVE AS POTENTIAL LIFEBANKS OF THE FUTURE. IT HAS BEEN THEORIZED THAT MAN MAY HAVE EVOLVED ON MANY PLANETS IN JUST THIS MANNER. AT ANY RATE, APPROXIMATELY ONE-HUNDRED-MILLION CHROMOSOMAL UNIT PACK SYSTEMS (CUPS) ARE DISPERSED THROUGH SPACE IN ONE-THOUSAND LIFEBANK DISPERSAL CARRIERS. AT A SPECIFIED DISTANCE FROM THE INITIAL DISPERAL POINT EACH LDC EXPLODES AND SCATTERS ITS CUPS—THUS, GREATER SPATIAL DISTRIBUTION IS ACHIEVED.

MARTIN was valiantly holding onto his reason. *God help me*, he thought grimly, *if I ever get back to anywhere someone's going to hear about this . . .*

"You can—do all that?" He was curious in spite of himself. "Here—in this capsule?"

THE PROCEDURE IS RELATIVELY SIMPLE, the computer told him. BASICALLY THE SUBJECT'S PHYSICAL BODY IS—"

"I don't want to go into that part," Martin said quickly.

THEN PERHAPS AN ANALOGY WILL SERVE. GENETICALLY SPEAKING, IF YOUR BODY WERE SUDDENLY TO EXPLODE EACH PARTICLE WOULD,

IN A SENSE, RETAIN ITS IDENTITY. THOUGH EACH, OF COURSE, WOULD BE NONSENTIENT, EACH WOULD RETAIN THE CELLULAR IDENTITY OF ABLE MARTIN. CURIOUSLY, I CAN PRESENT A SIMILAR ANALOGY USING MYSELF AS AN EXAMPLE. ORIGINALLY COMPUTERS WERE CONSTRUCTED AS SINGULAR UNITS. NOW, NEARLY ALL ARE ORGANIC TO THEIR IMMEDIATE ENVIRONMENT. I WAS A PART OF EVERY PART OF THE SHIP. PARTS OF ME WERE LOST WHEN THE SHIP WAS DESTROYED, BUT SINCE EACH PART IS ESSENTIALLY A PART OF THE WHOLE—

"Okay, I understand," said Martin. "One question. Logic or no logic, what you've got in mind is to do me in, right?"

IT IS A COLLOQUIALISM MEANING TO BRING ABOUT THE DEATH OF AN INDIVIDUAL.

"Yes. That's what it is. What it amounts to is you are going to take a human life against its will. What *that* is is murder, whether a—a person does it or a computer. You can look up the definition yourself. I don't have any desire to be 'nonsentient,' friend—and I couldn't care less about Spreading the Seed of Man. I don't know much about robots and computers but I can't believe you haven't got some kind of built-in something or other that prohibits your taking a human life. Look that up in your banks or cells or whatever and tell me I'm wrong."

ESSENTIALLY YOU ARE RIGHT, MARTIN. HOWEVER, YOUR STATE-

MENT IS NONRELEVANT.

"It's relevant to me!" Martin shouted.

PERHAPS. HOWEVER, WHEN I TRANSFORM YOU FROM YOUR PRESENT PHYSICAL STATE INTO CHROMOSOMAL-UNIT PACK SYSTEMS I WILL NOT BE 'TAKING A HUMAN LIFE.' I WILL MERELY BE REDISTRIBUTING ITS COMPONENTS IN A DIFFERENT MANNER. FROM YOUR WORDS I SENSE THAT YOU ARE EMOTIONALLY DISTURBED. AS I STATED, THE PROCEDURE IS PAINLESS. AN ODORLESS GAS—

"You can't—"

—WILL BE RELEASED IN THIRTY-EIGHT MINUTES. A—

"Thirty-eight minutes!"

—A STANDARD FORTY-FIVE MINUTES IS GRANTED TO SUBJECTS BETWEEN ANNOUNCEMENT OF THE PROCEDURE AND ACTUAL PROCESSING. THIS TIME MAY BE USED AT THE DISCRETION OF THE INDIVIDUAL CONCERNED—SLEEPING, EATING, OR THE CONTEMPLATION OF MYTHICAL DEITIES ARE SEVERAL OPTIONS. ENTERTAINMENT TAPES AND HOLOGRAPHIC PRESENTATIONS ARE AVAILABLE. ACCELERATED LEARNING TAPES ON A VARIETY OF SUBJECTS ARE ALSO ABOARD, INCLUDING COURSES IN ONE-HUNDRED-SEVENTEEN LANGUAGES. THESE LATTER, OF COURSE, MAY APPEAR IMPRACTICAL TO STELLAR OUTREACH CANDIDATES. YOU HAVE NOW CONSUMED NINE MINUTES, MARTIN. TIME REMAINING: THIRTY-SIX MINUTES.

MARTIN's body was slick with moisture. A sickly odor exuded from his pores. Think, think—he had to *think*! Only, how could he think with his head splitting open? He wondered if there was anything as simple as an aspirin in a Number Four MediPacket, Modified.

In moments his hands began to shake. He tried to stop them by putting them under his back, then clamping them to the arms of the couch. Nothing helped. The sweat on his body turned cold and he began to tremble uncontrollably. He closed his eyes and forced his breathing back to normal.

Maybe, he decided, it would be best to forget the whole thing. Stop fighting it. He had less than eight days of oxygen—even if the computer would let him live to use it. Those eight days would be pure hell—knowing they were the end, that no help was on the way. Why not just . . .

He angrily swept the thought aside. Anything could happen in eight days. If he could stay alive maybe he could con the computer into sending a signal. Someone *might* pick it up. A range of five hundred light-years covered a pretty big chunk of space.

Life Dispersal Carriers—great God, who had thought that one up! He wondered what the odds were against any of the one-hundred-million cellular bits of Able Martin ever getting anywhere. Or doing any-

thing when they got there. Those kind of odds, though, didn't seem to bother the computer at all. And why should they? Passengers in Chromosomal Unit Pack Systems would find it difficult to complain to the space lines.

Time . . . time . . . damn it, time was running out! Thirty-six minutes. Less than that, now. Maybe there was something in the planetary survival gear. If he could find it. And get to it. Take a good slice at the fleshy walls. Maybe short out the computer and . . . He tossed the idea aside. That wouldn't get him any closer to activating the beacon. Hell, he wouldn't know what to do with it if he found it.

There was only one way. He'd known that from the beginning. Fight the computer on its own ground. The computer wasn't God—it was a machine—a machine that used the tools of intelligence, but really had no intelligence of its own. Computers reasoned—but they only reasoned with what they had to work with. Didn't they? Basically, then, while the computer had access to a great deal more knowledge than he had and could put it all together faster and better—he, Able Martin, could outthink it. If he pushed the right button at the right time. That was the key: the computer had limitations. Find those limitations.

He tried to think back on what the computer had said. There had to be something. Somewhere. Option: ac-

tivate the signal beacon. No. The computer was stubbornly set against that. No time to argue the point. Option: Get to a planet. Get out of the capsule. Double-negative. He was a billion prime miles from nowhere. Option: talk the computer into letting him live long enough to dream up other options . . .

Martin wearily swept the whole thing aside. It was hopeless. No time. *Think*, damn it! Look at it. Turn it around. Take it apart.

"Computer."

YES, MARTIN.

"How much time left?"

SEVENTEEN MINUTES, TWENTY-ONE SECONDS, MARTIN.

Martin's stomach turned over. No time, no time!

HE DIDN'T try to think. Just let it flow. Let it all run by like a swiftly moving river. Watch it as it passes. Warp. Malfunction. Destruction. Ejection. Beacon—

Hold it.

Something.

He struggled to pin it down. Don't struggle—relax. Warp. Malfunction. Destruction. Destroyed how? What did the computer say?

"Computer!"

YES, MARTIN.

"How was the ship destroyed?"

I HAVE INFORMED YOU OF THAT, MARTIN.

"Inform me again!" Martin said savagely.

YES, MARTIN. THE SHIP—

"Like you told it before. *Exactly* like you told it before."

—THE SHIP WAS DESTROYED THROUGH A MALFUNCTION IN THE DAVIDSON AUXILIARY REGULATORS. ESSENTIALLY, INTERFERENCE FROM AN UNANTICIPATED MASS—

"Wait. There. An unanticipated mass. What—kind of a mass?"

A MASS WITH A DENSITY OF—

"Forget the details," Martin said quickly, "general description."

GENERAL DESCRIPTION: THE MASS IN QUESTION IS DEFINED AS A PLANETARY BODY.

Martin's heart skipped a beat. "Okay. Planetary body. And the ship came too close to it. So its mass interfered—Where? Where was the mass? In Warp?"

NO, MARTIN. THERE ARE NO PLANETARY BODIES IN NONSPACE.

"Then it's here—in real space?"

YES, MARTIN. IF THE DAVIDSON AUXILIARY REGULATORS HAD BEEN FUNCTIONING PROPERLY, PRESENCE OF A MASS OUTSIDE THE WARP WOULD NOT HAVE—

"There's a planet here? And you didn't tell me about it!"

ITS PRESENCE WAS NOT RELEVANT, MARTIN.

Martin bit off his words. "Time. How much time?"

TWELVE MINUTES, EIGHT SECONDS, MARTIN.

Martin took a deep breath. Easy. Take it easy . . .

"The planet. How far away is it?"

FOURTEEN POINT SEVEN MILLION MILES.

"How long would it take to get there?"

NOT RELEVANT, MARTIN.

"Hypothetically!"

SIX STANDARD DAYS, PLUS FOUR HOURS, MARTIN.

We could make it. We could just . . .

"Air. How about air?"

OXYGEN CONTENT IS SUITABLE FOR HUMAN LIFE.

"Then why in hell—" Martin paused, collected himself. "Please. Give me the reasons this planet isn't—relevant to me."

SUITABLE OXYGEN CONTENT FOR SUSTAINING LIFE IS MERELY ONE REQUISITE FOR PLACEMENT OF SURVIVORS ON A PLANETARY BODY. OTHER FACTORS INCLUDE: PROBABILITY OF ADEQUATE FOOD AND WATER SUPPLIES. SUITABLE CLIMATIC CONDITIONS. NEGATIVE FACTORS: POSSIBILITY OF PRESENCE OF LIFE FORMS INIMICAL TO HUMAN LIFE. POSSIBLE—

"Look," Martin interrupted. "Those things are for me to decide. I'll take my chances." He stopped, bit his lip thoughtfully. "Wait. Wait, you don't know whether any of those factors are relevant, do you? You said 'possible,' and 'probable'—that means you can't tell anything from here. Or can you?"

NO, MARTIN. AT THIS DISTANCE, IT IS ONLY POSSIBLE TO COMPUTE MASS, DENSITY, ATMOSPHERIC CONTENT, PRESENCE OF LAND AND WATER AREAS—

"Then you can't say it's not suitable—you haven't seen it!"

AFFIRMATIVE, MARTIN.

"Then for God's sake, let's at least look at it! We've got the time, we can get there. What's the big hurry to send me sailing off in your bloody whatever it is—lifebank disposal—"

LIFEBANK DISPERSAL CARRIERS (LDC), MARTIN.

"Okay! You've got to—"

MARTIN. FIRST, I SHOULD NOTE THAT THE POSSIBILITY OF ACTIVATING THE BTD WAS CONSIDERED, DUE TO THE PRESENCE OF THE PLANETARY MASS. HOWEVER, LACK OF ANY RADIO ACTIVITY OR EVIDENCE OF OTHER COMMUNICATION DEVICES NEGATED THAT OPTION. IT WAS NECESSARY, THEN, MARTIN, TO WEIGH THE PROBABILITY OF YOUR SURVIVAL ON THE PLANETARY MASS AGAINST UTILIZATION OF YOUR COMPONENTS UNDER THE STELLAR OUTREACH OPTION. RESULTS: ONE: IT IS NOT POSSIBLE FROM THIS DISTANCE TO ADEQUATELY DETERMINE ALL PERTINENT CHARACTERISTICS OF THE PLANETARY MASS IN QUESTION. TWO: SUCH CHARACTERISTICS COULD BE DETERMINED BY VIEWING THE PLANET FROM A CLOSER PROXIMITY. THREE: ENERGY CONSUMPTION REQUIRED TO REACH THE PLANETARY MASS FOR FURTHER STUDY WOULD PROHIBIT FURTHER LARGE EXPENDITURES OF ENERGY. FOUR: IF THE CHARACTERISTICS OF THE PLANET INDICATED A LOW SURVIVAL PROFILE (LSP),

PLACEMENT WOULD BE NEGATED. ADDITIONALLY, NO ENERGY WOULD THEN BE AVAILABLE TO EXERCISE THE STELLAR OUTREACH OPTION. CONCLUSIONS: IT FOLLOWS THAT SURVIVOR ABLE MARTIN COULD THEN NEITHER BE (A) PLACED ON A SUITABLE PLANETARY BODY NOR (B) UTILIZED AS CHROMOSOMAL UNIT PACK SYSTEMS (CUPS). THEREFORE, I HAVE A CHOICE BETWEEN EITHER EXERCISING THE STELLAR OUTREACH OPTION OR PLACING MYSELF IN THE POSITION OF VERY POSSIBLY BEING UNABLE TO EXERCISE EITHER THE STELLAR OUTREACH OPTION OR PLANET-PLACEMENT. IT IS ILLOGICAL TO CHOOSE THE LATTER. FURTHER, EDICT ONE OF MY PRIMARY PROGRAMING INSTRUCTIONS (PPI) PROHIBITS SUCH ACTION.

Martin looked up wearily. "I have to ask. What's Edict One?"

EDICT ONE PROHIBITS ME FROM ENDANGERING A HUMAN BEING'S CHANCE OF SURVIVAL THROUGH NEGLIGENCE.

"What?" Martin jerked up, then sank back limply to the couch.

"Time."

SIX MINUTES, EIGHTEEN SECONDS. THE PROCESS, AS I HAVE EXPLAINED, IS COMPLETELY PAINLESS. AN ODORLESS—

"Shut up," said Martin.

That was it then. Six minutes. Zero. There was no point in carrying the farce any further. Clearly, he had been had. The electronic halfwit was winner and still champion.

HE THOUGHT about three girls who might miss him for a while and a number of creditors who would tearfully mourn his passing. He wondered what the planet looked like. He wished he could see it and tried to imagine it. Trees. Lakes, maybe? Fresh air. All the fresh air he would ever need. Lonely, but a whole world . . .

Martin sat up abruptly. "Computer!"

YES, MARTIN.

"What's your definition of a world—a planetary body—capable of supporting human life?"

ONE; ATMOSPHERIC CONTENT TO CONSIST OF—

"Just generalize—briefly!"

ADEQUATE AIR, FOOD AND WATER PLUS A SUITABLE ENVIRONMENT.

"That's all?"

YOU REQUESTED A BRIEF, GENERAL STATEMENT, MARTIN. THERE ARE NUMEROUS SPECIFIC REQUIREMENTS.

"But basically, that's it."

AFFIRMATIVE, MARTIN.

Martin took a deep breath. "I'm going to describe a specific planet. It has adequate air, food and water, plus a suitable environment. That meets your general requirements?"

YES, MARTIN.

"I have described this escape capsule. Do you still accept my definition?"

NEGATIVE, MARTIN. THIS ESCAPE CAPSULE PARTIALLY MEETS SOME OF THE REQUIREMENTS OF A

PLANETARY BODY CAPABLE OF SUPPORTING LIFE. IT DOES NOT, HOWEVER—

"It has air, food and water," Martin shouted. "And the environment's suitable—I love it!"

—DOES NOT, HOWEVER, MEET ALL NECESSARY STANDARDS OF A SUITABLE PLANETARY BODY.

"Listen," Martin said desperately, "there are artificial planets, satellites . . ."

YES, MARTIN.

"They have atmospheres—like this one—and don't tell me the atmosphere has to be on the outside, either—"

AGREED, MARTIN.

"—and nobody said anything about size, so—"

PLANETARY BODIES CAPABLE OF SUPPORTING HUMAN LIFE CAN INCLUDE THE CATEGORY OF ARTIFICIAL AS WELL AS NATURAL PLANETS. HOWEVER, THIS PARTICULAR ARTIFICIAL PLANET LACKS A NECESSARY CHARACTERISTIC.

"What?"

UNDER YOUR DEFINITION, A SPACE SHIP, SEAGOING VESSEL, LANDCAR OR EVEN AN ANIMAL-DRAWN VEHICLE COULD CONCEIVABLY FULFILL THE REQUIREMENTS OF HAVING ADEQUATE SUPPLIES OF AIR, FOOD AND WATER AND A SUITABLE ENVIRONMENT—WHETHER THEY ARE PLANETARY BODIES OR NOT. HOWEVER, NONE OF THESE CARRIERS FULFILL THE NECESSARY REQUIREMENT TO WHICH I REFER. NONE CAN SUSTAIN

A HUMAN BEING OVER HIS NATURAL LIFESPAN. NEITHER CAN THIS ESCAPE CAPSULE. NOR IS THERE ANY LOGICAL PROBABILITY THAT ADDITIONAL SUPPLIES OF AIR, FOOD OR WATER CAN BE OBTAINED FROM OUTSIDE SOURCES. THEREFORE, IT, TOO, MUST BE CLASSIFIED AS A CARRIER, AN INSTRUMENT CAPABLE OF SUSTAINING HUMAN LIFE ON A TEMPORARY BASIS—NOT AS A PLANETARY BODY.

"Oh, Jesus," Martin moaned. "How much time?"

THREE MINUTES, TEN SECONDS, MARTIN.

"Look—what's the hurry? Can't you delay?"

NEGATIVE, MARTIN. THERE IS NO LOGICAL REASON FOR PROPOSING A DELAY IN PROCESSING.

Three minutes . . .

"NO WAY TO—" "Hold it!" Martin sat up, strained against the couch. "That's all that's missing, right? The capsule's got to sustain me for my natural lifespan. Then it can be a planet. Officially."

YES, MARTIN. UNDER A BROAD DEFINITION—

Martin held his breath. "Computer. How old am I?"

QUESTION, MARTIN. ARE YOU INQUIRING AS TO YOUR AGE OR MY KNOWLEDGE OF YOUR AGE?

"Yes. Your knowledge. Do you know how old I am?"

NEGATIVE, MARTIN. I DO NOT HAVE THAT INFORMATION.

Martin breathed a silent sigh. It

wasn't in the passenger records, then—just name, occupation, destination. The image of a second-hand sweeping around a dial at lightspeeds flashed through his mind.

"What's the average lifespan of a human being?" Martin asked.

SOURCE: CONFEDERATION STATISTICAL BUREAU (CSB): THE AVERAGE LIFESPAN OF HUMAN BEINGS WITHIN THE PROVINCES AND TERRITORIES OF THE CONFEDERATION IS NINETY-SEVEN POINT FOUR STANDARD YEARS.

"Oldest recorded lifespan?" Martin added quickly.

OLDEST RECORDED LIFESPAN: ONE HUNDRED AND FIFTY-ONE POINT THREE STANDARD YEARS. PLACE: SYSTEM NUMB—

"And you don't *know* how old I am?" Martin broke in. "Earlier, you said you could tell from my physical characteristics how much oxygen I'd use. Can't you see me? Don't you know what I look like?"

NEGATIVE, MARTIN. I DO NOT 'SEE' AS A HUMAN DEFINES 'SEEING.' I HAVE SENSORY DEVICES WHICH ENABLE ME TO GAIN A VARIETY OF DATA—

"How much time?"

FIFTY-THREE POINT NINE SECONDS, MARTIN.

Sweat stung Martin's brow. He gripped the couch to keep his hands from trembling.

"Computer," he said evenly, "I am three hundred and forty-nine years old."

QUESTION, MARTIN: WHILE I CANNOT 'SEE' YOU IN THE MANNER IN WHICH YOU DEFINE 'SEEING,' I CAN SENSE CERTAIN PHYSICAL FUNCTIONS. YOUR HEART IS OPERATING IN THE MANNER EXPECTED OF A HEALTHY HUMAN MALE, BETWEEN THE AGES OF THIRTY-FOUR AND THIRTY-SEVEN—

Martin's stomach turned over. *Christ, I had him. I almost had him. . .*

—THEREFORE, THERE IS AN IRREGULARITY BETWEEN YOUR STATED AGE AND YOUR PHYSICAL CONDITION. TIME: FOURTEEN POINT THREE SECONDS.

Martin's throat clamped shut.

PRELIMINARY PROCESSING WILL BEGIN, MARTIN.

"Wait!" Martin cried frantically.

TIME: EIGHT POINT ONE SECONDS, MARTIN.

"Listen, damn it," Martin shouted, "I'm three hundred and forty-nine years old. I—Wait, look—it is a thirty-five year-old heart, I—I had a transplant! Right, I had a transplant!"

TIME: SIX POINT THREE SECONDS, MARTIN.

"You can't kill me," Martin shouted, "don't you understand? Look at the odds—I'm way overdue to die! That's logical, isn't it? I've got more than enough air, food and water to last me the rest of my natural lifespan!"

TIME, TWO SECONDS, MARTIN. THE—

"No!"

—STELLAR OUTREACH OPTION IS
CANCELED.

MARTIN sank back and sucked
in precious swallows of air.
"All right," he said weakly, "this
capsule is a planet. An official
planet."

AFFIRMATIVE, MARTIN.

"I want my—planetary survival
gear."

AFFIRMATIVE, MARTIN.

"And the Medi-Packet. And the
food and water supplies."

AFFIRMATIVE, MARTIN.

"Show me how you open this
thing up. The exit portal."

A red knob appeared beside him.

IT IS INOPERATIVE, MARTIN, UN-
LESS SENSORY PROBES INDICATE A
SUITABLE ATMOSPHERE ON THE
OUTER SURFACE. THERE IS NO
SUCH—

"Fine. Okay." Martin lay back
and took a deep breath. "Com-
puter. I want my planet to assume
an orbit around the other planet in
question. Any objections?"

NEGATIVE, MARTIN. THERE IS
PRECEDENT.

"Any orbit I want."

AFFIRMATIVE, MARTIN.

"Okay. Do it. Now."

AFFIRMATIVE, MARTIN. SPECIFY
ORBITAL HEIGHT, PLEASE.

Gotcha, you son of a bitch . . .

"I want a decaying orbit," Mar-
tin said. "to about eighteen inches.
Then just hold it there. Stationary.
Yes, that'll do nicely."

The computer said nothing. ★

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ANSWER CAME THERE NONE

JAMES WHITE

*The best answer to a question
may be—yet another question!*

I

LIKE a green and seemingly virginal carpet the planetary surface unrolled five miles below the slowing ship. The grasses and small plants showed no signs of vegetable blight—the atmosphere was free of industrial pollutants and there were no cities or surface transport networks of any kind. But to the ship's sensors and the tired, experienced eyes of the crew the greenery was a beautiful lie, a cosmetic skin of apparent youth overlaying a world which for many

thousands of years had been drained of all its natural resources, used up and emptied of all life above the insect level.

"We're wasting our time," said Jan, in a tone that indicated that she was looking for an argument.

Peter did not like arguing with her, especially during the last few minutes before touchdown, even though a searchship was fully capable of landing itself. He waited until the ship had recovered from a brief attack of the transonic shudders and their landing spot was centered in the forward viewscreen.

Then he said, "Probably."

She gave a short sigh of irritation and tapped for a magnified picture of the landing area on her duplicate display. He could not see the particular section she had blown up for closer examination because her head was in the way.

Lit in profile by the screen, Jan looked almost young again. In silhouette the graying hair and the fine facial wrinkles did not show. But it took more than a trick of back lighting, he knew, to cancel out the weariness and lack of hope in her body and mind—as well as his own. Like the salt used to preserve meat in ancient times, every cell and thought was soaked in it. If an old-time cannibal had taken a bite out of one of them, hopelessness and frustration would have been the strongest taste.

Eighty years, he thought, was a long time to be doing the same job.

The screen darkened as the ship's nose went up, pulling forward-facing cameras off-picture, and they began falling tail-first into the increasingly resistant softness of their anti-gravity landing cushion. They touched down—the cushion flicked off and the ship rocked gently as the weight forced its landing legs deep into the soft ground. The all-around viewscreens lit up and the images steadied and sharpened as the ship came finally to rest.

"We *are* wasting our time," Jan persisted. "I'm sure we have been here before."

"Unlikely," he replied, "but you could be forgiven for thinking so. One of these sites is very much like any other—the same green mounds, the same type and size of ruined buildings even, because they are probably examples of the most advanced and durable structures built by the same architect—"

He broke off because she was shaking her head. In a less conciliatory tone he went on, "Are you suggesting that I made a mistake and we've doubled back to a site already investigated? An understandable error, you are doubtless thinking, caused by my advancing years? But you are forgetting that our computer, which isn't subject to lapses caused by senile decay—"

"I could argue that point, too," she broke in.

His first impulse was to tell her that the recent trouble they had

had with the computer had been due to operator error and that she had been the operator, but he thought better of it. Instead he said, "Are you coming outside?"

"Yes," she replied. "I prefer talking to you to sitting here talking to myself."

"I'm glad," he said dryly. "For a moment I wondered if the romance was going out of our relationship."

BUT THEY said very little while they were climbing into their protective suits, probably because he had touched on a subject to which they were both hypersensitive. He would willingly have bet that within the next hour there would be an argument about rejuvenation and that argument, he knew from bitter experience, nobody won.

Preceded by a general purpose robot which, in addition to the usual sensory and specimen gathering equipment was also programed for medical and surgical emergencies, they moved down the ramp and onto the springy turf. The sun shone brightly out of a sky whose clouds could not have been more tastefully arranged by a landscape painter. The air was fresh and pure and eminently breathable, but their heavy protective suits were needed to protect them against the insects which crawled and flew and were incredibly vicious. Even though he knew that he would have no use for it, he wore a side arm because the

regulations required him to do so.

Jan did not wear one because, she was fond of saying, if a native life form more than two inches tall came at them she would be so pleased that she would want to hug the thing instead of shoot it.

The insects were everywhere.

Hundreds of the things died with each step the searchers took, while the robot's balloon tires wreaked even greater havoc. But the dark and oozing tracks that stained the grass in their wake were gone before they had traveled ten yards because the insects ate each other and not, for some odd ecological reasons, the short grass that sheltered them. Any insect left defenseless by death or injury disappeared quickly, right down to the last smear of juice or edible tissue.

There had been a time when Jan and he would have examined the insects' behavior for indications of developing intelligence—some sign, perhaps, that these last inheritors of this and so many other worlds would produce an insect gestalt with which the human race might eventually communicate. Now, however, they walked between and over the all too familiar grassy mounds and ignored the senseless ferocity under their feet.

Beneath the grass and the layer of warring insects the robot's sensors reported the usual mixture of indestructible plastic debris and metallic oxides. Toward the end this particular civilization had used

a lot of plastic because no metal had been available. Nevertheless the beings had built well and the plastic ruins still stood impressively tall in a few places, even though the builders had long since gone down before the insect enemy.

"That one looks interesting," Peter said, pointing toward a squat, five-story building that seemed to be structurally complete except for its missing roof. Many of the plastic windows were still in place, but rendered virtually opaque by weathering and the mosslike growth that also covered the walls. The ground-level entrance was large and clear of rubble. He added: "Do you still think that we've been here before?"

"The familiar can look strange," she said stubbornly, "if you approach it from a different angle."

"And the wrong angle of view," he replied, "can make the strange look familiar. But let's stop arguing and start looking inside. We are supposed to examine at least one building on every site and more if we should turn up something interesting—"

His voice trailed into silence. He was thinking that one indication of approaching senility was the habit of explaining things to someone who already knew the explanation.

A FEW minutes later the robot placed sensors against a wall and emitted high-pitched squeaks as it sonically analyzed the building

for structural defects. Satisfied that the place was safe for human searchers, it preceded them inside.

With the robot's main beam trained at full intensity on the ceiling there was more than enough light for them to see around the big entrance hall. The remains of what might have been desks and possibly some clear-walled display cases were spaced at intervals about the floor, while the walls were covered with large pictures. A heavy dusting of living and long-dead insects over everything made it difficult to pick out details.

The contents of the display cases, if they once had been display cases, were no longer recognizable. Most of the pictures, for some reason, were less obscured by insects and showed machinery with natives busy around it—Peter deduced a large factory complex and what looked like a supersonic atmospheric flyer of conventional design. A bank of elevators was framed against the wall facing the entrance, the doors collapsed outward under the pressure of the rubble that had collected in the lift-shafts.

A broad ramp curved upwards to the level above. The searchers began to climb.

From their studies of sites visited earlier they had formed a vague idea of what the natives of this world had looked like and of the way they moved when they were not riding in cars or flyers. Physically they had resembled short, wide-

based cones with a number of specialized appendages—manipulators, visual equipment and possibly eating and breathing orifices—sprouting from the top. Presumably their brains were housed somewhere inside the stubby, legless bodies, which had moved snail-like—but not necessarily slowly—on a wide apron of muscle. Stairs or ladders inside the dwellings had been conspicuous by their absence.

As he mounted the ramp Peter's eyes were fixed on the robot, which was capable of climbing anything, when Jan gripped his arm tightly and pointed ahead.

"Look at those sculptures," she said excitedly. "And undraped, too. This will answer a lot of the physiological questions."

Two enormous figures, five or six times larger than life, dominated the floor space at the top of the ramp. They had been cut from hard rock and the insects had left them alone—Peter saw that every muscle and joint and wrinkle was rendered in perfect detail. No wonder Jan was pleased.

"I suppose," he said, "the smaller of the two is the female of the species?"

"It's easy to tell who is the medic in this family," Jan said, shaking her head. "No. I'd say that the small one with its eye glaring aggressively at us is their equivalent of Neanderthal Man, while the tall one with the more specialized

appendages, whose eyestalk is pointed skyward, represents the builders of this once-mighty civilization."

... which rose to its greatest heights, he added silently, and signaled its presence to the rest of the galaxy and then died, two thousand years ago . . .

"We're lucky," Jan went on. "We've found a cultural center designed for posterity—maybe even us. Look around you. Some of those display cases are still complete and their contents are undamaged—which isn't surprising since most of them contain oddly-shaped pieces of rock—"

She broke off and turned away from him. The robot was busily photographing the alien tableau and concentrating its main beam on the subject it had chosen. Jan switched on her suit light and picked her way along a cluttered aisle to the next ascending ramp. She went up it at a near run. Peter followed more slowly. By the time he and the robot found her crouched over a collapsed display case, she was still trying to catch her breath.

"You shouldn't run like that," he said. "Over-exertion is dangerous at our age."

She waved his words aside and went on excitedly, "I was pretty sure below, but now there is no doubt in my mind. We've found a museum. The ground floor level is devoted to the race's prehistory—

crude stone implements, knives, early attempts at working clay or mud. On this level they have progressed to agriculture and weaving. Most of the specimens were of perishable vegetable matter, so time and the insects have done for them. But the wall pictures are well preserved and clearly show the level of culture of that period. Succeeding levels should bring us to the time when this civilization began to fall apart. We may even find the reasons for its collapse."

"We know the reason why it, and all the others, collapsed," he said tiredly. "They had too many, smug, self-satisfied, selfish beings eating up too few natural resources. We've pieced together that particular picture too many times—what's begun to impress me is that nearly every culture we've found has left us a lesson of its past; not one a lesson for survival."

"I know," she replied, some of the enthusiasm fading from her tone. "But finding this building was a piece of rare good luck and there might be another piece just waiting for us. We're due some good luck and I have a feeling—"

"You always have a feeling," he broke in. "It's called wishful thinking."

"Are you trying to be nasty or can't you help it?" she said angrily, then went on: "Right here we may be able to piece together a complete picture, instead of searching all over the planet for pieces of the

jigsaw—and probably missing most of them. I'm glad you made that mistake and doubled back here because—"

II

"**D**AMN it," he said furiously. "You keep insisting that we landed here before, but we can't have done so. The computer isn't your specialty, so I can't completely convince you that when I program the ship for a search it cannot possibly make that kind of error."

"It couldn't—but maybe you could," she snapped back. Then, more quietly, she went on, "You are sure that you didn't make a mistake and I am sure you did. So we are having this stupid argument and letting it blunt our powers of observation and reasoning. We've found something I think we missed before and you don't. That doesn't alter the fact that we could be on the point of learning the workings of an extra-terrestrial culture that—in all respects save one—might make ours look medieval by comparison."

"This is all wrong," she went on seriously. "We're losing our sense of proportion. I think we've let ourselves grow too old. We seem to do nothing these days but argue and snap at each other and we could be missing important data simply because we are squabbling instead of looking."

"I know we're growing old," he said, "But the last time this subject came up we agreed that there would be no more rejuvenation programs unless we found—"

"You agreed. I had reservations."

He took a deep breath and tried to hide his anger at having to say something he had already said too many times before.

"We've already undergone three rejuvenations. There is no problem about getting another. Even though the treatments are restricted because there are too many people, our work insures our being made young again with no quibbling. At the same time—if we go through the process once again we'll be morally obliged to continue our work as searchers. And I, for one, do not think that I could stand another twenty years doing—this. Even as a youthful, vigorous, clear-eyed grave-robber instead of an elderly specimen with hardening of the intellect. We've already known lifetimes of disappointment. To extend it by another twenty years is more than I could take. I'm sorry. But if *you* want to apply—"

He could see her head shaking inside her helmet.

She said, "No. I do as you do."

"But—" he said dryly.

"But," she said softly, "I miss the fringe benefits."

For a few seconds they stared silently at each other. Then he grinned and suddenly they both

laughed. The problems were still there—nothing had changed so far as their personal difficulties were concerned but, for a short time at least, the senseless arguing was over.

"**I**S THERE anything special I should look for?" he asked when the therapeutic laughter had ceased. "Something to indicate species survival?"

"I don't know," she replied. "Look for something different, some new idea or facet in the culture that would make it unlike any of the others we've investigated. It could be a scheme for population control or feeding—maybe an idea that came too late to do these creatures any good, but one we might use on Earth before we go the same way. But I would especially like to find some indication that—before their culture fell apart—some of them were able to get away and plant a colony. In the two thousand years since this world stopped signaling a flourishing colony could have come into being in another system. A colonization project like that is important enough to have a place in a museum," she added, "and its position in space would almost certainly be included in the exhibit."

In short, he thought wearily as they moved toward another ascending ramp, we are still looking for our own image . . .

They had been looking for 'people' on the first search mission, Peter remembered, but on that occasion it had not seemed to matter too much when they had not found them. The prospects had been too new, strange and exciting—setting out in one of the first searchships with everyone wishing them well. In many respects it had been like a honeymoon—for Jan and himself it had been their honeymoon—and those tend to be perfect in every way, especially in retrospect.

Using the newly developed star-drive they had jumped ten light-years into interstellar space, deployed their vast antennae and listened. More accurately, the ship's sensors had listened while the personnel carried out explorations of a more personal nature. The weeks of waiting had passed pleasantly enough while the antennae scooped up mush from stellar objects that radiated on the bands above and below the visible spectrum. Then, suddenly, a signal had come that could only have had an intelligent source.

It was simple, repetitious and as individually unique as a signature. As expected, it faded out within a few minutes and returned, again for only a few minutes, just over a day later.

During their training on Pluto Station they had listened to recordings of many such signals. The theory had been that the "messages" emanated from antennae on

worlds that could well lie halfway across the galaxy and that the periods of silence corresponded to the rotational period of the transmitting planet. It was also thought that the transmitting antennae were steerable, so that they painted virtually all of the surrounding space in measured, vertical sweeps. This theory proved true in the majority of cases, the searchers discovered later, but there had been a few worlds where the signals had been sent from a transmitter in orbit.

Peter had taken a fix on that first signal and he and his bride had jumped one hundred light-years closer. Then they had taken another fix and jumped again. There was no need to make sense of the signal although they had often tried—it was simply an alien voice saying over and over again that it was there.

Then, abruptly, it was no longer there.

They had back-tracked until the signal was coming in again, then made a long jump at right angles to fix the system's position by triangulation. Within a few weeks they had found it—and arrived on a world wiped clean of intelligent life.

THE SYSTEM had been something like four thousand light-years from Earth and in all probability its signals had been coming long before human technology had reached the level of being

able to detect them. Radio frequency emissions traveled at the speed of light, and their ship had continued to encounter those signals for more than half of its four-thousand light-year journey, so that the civilization which produced them had lasted for at least two thousand years.

But even long-lived, stable and technologically advanced cultures come to an end and, when such a civilization fell—it fell hard.

Peter's and Jan's feelings on finding that first dead world had been of mild disappointment rather than sorrow. They had been unlucky first time out, they told themselves, and next time there would be *people*—new, alien and perhaps dangerous *people*—to contact.

The risks involved were not great because a race that advertised its presence all over space would probably welcome contact. But on that first world there had been only insects and the remains of a great civilization in a remarkably good state of preservation. Jan and Peter had taken back specimens and records that had advanced Earth technology by a half-century. Their debriefing had lasted for nearly three years, during which they had been heaped with academic and other honors as had, to a lesser extent, the other searchship crews who had brought home smaller pieces of the alien bacon.

Finally they had been allowed to try again.

The second world they found had also died long before its radio signals had finished their slow journey to Earth. There were interesting artifacts and useful processes on that world, too, and on the many others they visited. At home everyone benefited from the steady feedback of alien know-how. But the searchship crews grew tired of robbing technological tombs.

They wanted to find people . . .

“NEXT TIME we'll ask for a trip into the Galactic Center—” Peter began, then stopped. He had made the same suggestion at this stage of the investigation of nearly every planet they had visited.

“We tried that once and were nearly killed,” Jan replied. “If you remember—stars there have young planets and it is easy to have the ship wrecked by an extra-terrestrial mammoth or an outbreak of volcanic activity. But you know all this,” she went on irritably. “Why bring it up again when you'll end by arguing that it's better to follow a signal—because then we are sure of something having been there—than to launch ourselves into a forest of stars where life as we know it has not had a chance to evolve.

“We've never delayed our rejuvenation treatments as long as this before,” she added, “and I think that we're becoming forgetful as well as bad-tempered, myself included. Or have you a fresh idea

about a Center search?"

He shook his head. "Not really. My idea is that we take rejuvenation again and, young and healthy and with our reflexes speeded up, we make a three-year random search of the Center. The planets we find may be composed of primeval magma, but there is still a chance that we will find intelligent life. Maybe young life—but intelligent. A fresh star. We can't go on forever trying to talk to alien ghosts."

"Neither can we talk to alien children or mindless alien embryos," she replied. "We must find someone our own age to play with."

"Yes," he said.

They had climbed from the third floor of the building and were beginning to explore the fourth. The equivalent of the industrial revolution had been left behind and nuclear energy had been released, although not in time of war. In common with all of the other dead cultures they had studied, this one had had very few major wars in its recorded history. Progress in all of the arts and sciences had been slow and at every stage the culture had remained stable. The beings appeared to have been cooperative, easy-going and seemingly happy. Their world had been a nice place to live.

The display cases on the fourth floor were relatively undamaged, but their metal contents were irregular masses of corrosion. Plastic

components and models, although discolored and encrusted with dead insects, were in good condition. And the searchers were encountering more and more specimens of plastic books—great, thick-paged tomes whose text seemed to float above the pages and whose illustrations gave an illusion of perfect three-D on a flat surface.

"They'll be interested in that particular effect at home," he said. *At least I hope they will*, he added silently. The people at home were becoming disinterested in everything—including themselves.

"Yes," she replied, "and the contents of this building will enable me to finish this mission in two or three months instead of a year. We were lucky finding a museum—"

"Landing here wasn't a waste of time, then?"

HE DID not know what was driving him to restart the argument which, only a few minutes earlier, he had been so glad to end, but he felt angry, frustrated and depressed and suddenly he wanted someone besides himself to suffer.

"No, it wasn't a waste of time—" she began testily, then stopped. For a few seconds she stared at him as if he were her patient and she a doctor or nurse, her expression sympathetic rather than angry. Then she went on: "Look at that mural over there. One of their interstellar radio transmitters, wouldn't you say?"

Feeling even more annoyed by her sympathy, he looked in the direction she was pointing and nodded. The murals were large and in a very good state of preservation and, like those in the lower levels, they were displayed in chronological order, beginning at the right of the entrance ramp and running around three walls to end on the left of the ascending ramp to the next level. Two sets of transmitting antennae were pictured on adjacent murals, one built on a snow-streaked headland overlooking an angry sea and another set in desert land.

The next few murals in line showed advanced agricultural processes on land, sea and under the sea—a lot of wall space had been devoted to the solutions, however temporary, of the problem of feeding a rapidly increasing population. The desert transmitter was shown again, its bright metal dulled by the passage of centuries and the surrounding desert converted to a green and yellow patchwork of field tended by agricultural robots.

His eyes moved to the next picture and he laughed sardonically.

"Well, now," he said. "It seems they built their interstellar signaling devices several centuries before they attempted their first space flight. They were a smug, self-opinionated bunch of—"

"Maybe they had their priorities

right," Jan broke in. "After all, they must have realized that there was a strong possibility of life in other star systems as soon as they outgrew the idea that their particular world was unique and the center of the universe. They probably decided that an interstellar drive was beyond their technical capabilities."

"The stardrive was beyond our technical capabilities, too," he said drily, "until we began looking for unlikely solutions instead of obvious ones. The whole concept is so obviously impossible that it was sheer—"

"So they chose instead," she continued firmly, "to signal their presence to the rest of the galaxy in the hope that someone with a stardrive would come to them, and they could then do a spot of high class technological horse-trading. They were an intelligent and patient race who obviously believed that everything comes to those who wait."

"We came," he replied grimly, "two thousand years too late."

III

THEY DID not speak again until they had completed their circuit of the murals and were moving toward the top of the last ramp. The robot's lighting was no longer necessary because the roof of the topmost level had fallen in, wrecking most displays and covering the floor with rubble, which was in turn

covered by patches of grass. But here, too, the murals showed clearly through their thin coating of living and dead insects.

"They must have had a pretty potent insect repellent," he said, "to be able to keep the surface of those pictures clear after all this time."

"But they weren't able to kill them all," she said softly. "Nobody ever succeeds in killing them all."

The murals showed space missions to the nearer planets and bases being set up. But there were no indications of the colonization of the worlds concerned, much less the building of generation ships for a sub-light-speed attempt at planting an interstellar colony. The transmitters were shown again, still patiently sending their signals to the stars, which this race would never reach. There were pictorial examples of high-density living structures and high intensity agriculture which was being troubled by some kind of blight. One of the pictures showed enlarged images of various types of insects with what could have been the chemical symbols representing the insecticide that would kill them.

There was no sense of urgency or fear in the pictures—the museum had been built by a long-established and stable race which did not frighten easily. But to a search-ship's crew which had seen it all before the signs were plain. Another flourishing culture, severely

weakened by diminishing food and energy resources, was about to go down before an enemy too small and mindless even to know or care that it had won.

"Let's go back to the ship," Peter said dully.

Jan nodded, still looking at him as if he were ill, and said, "Then what?"

"Then we'll talk about something other than grave-robbing for the rest of the evening. Tomorrow I'll help you begin to evaluate this material until it is time to go home."

"And then?"

HE HAD taken her hand to help her over a pile of rubble, and now that they were retracing their steps along a clear section of ramp he continued to hold it for reasons he could not define. He was still angry. He knew that she had always been argumentative and strong-willed. But there had been times when even the serious arguments had been of no real importance and had been quickly forgotten, instead of dragging on interminably and poisoning their conversation and their work for days on end.

"Then we'll go home and rejuvenate for one last trip," he said. "You're right about our condition, of course—we spend too much time arguing and not enough searching. And we really should make our last trip in top physical condition. We just might find something."

"And if we don't?"

"We resign," he said firmly. "I'm pretty sure there will be no opposition. The number of searchship missions has been reducing steadily over the last ten years and even our top people are beginning to lose hope. There are also signs that our culture, too, is becoming self-satisfied and self-centered and beginning to die on its feet. One of these decades we'll lose our sense of adventure, our insatiable curiosity about the universe and the beings who inhabit it. We'll begin to set up interstellar radio transmitters and settle back to let the Others find us.

"By that time," he added, "we two will have used up our fourth period of youth and our final old age in sampling the delights of our smug little culture, while trying not to notice the news flashes about insects—or other rivals—adapting to our latest pesticides."

"That might not be much fun."

"Of course it won't be fun," he told her. "So maybe we'll make two last trips or even three—the more last trips we make the greater will be our chances of finding something."

"This is hopeless," she burst out suddenly. "It always has been hopeless. We're wasting our time."

"I know," he said.

But the searchship crews had been chosen very carefully from that large, but rapidly diminishing, number of people who could not give up hope. An unbiased observ-

er, while considering this particular psychological type, might have said that steadfastly refusing to face inevitable failure was utter stupidity. But it had been stupidity of this order that had taken the race so rapidly, if at times violently, to its present cultural and technological eminence. And certainly momentum powered by persistent stupidity had produced both the star-drive and gravity control and—now that humanity had finally renounced war an even higher order of stubborn, self-aware stupidity was driving them to find a partner before their culture became too ingrown. And before the stupidity that had made them great became lost in a rising tide of intelligence and philosophical acceptance of static realities.

As they followed the robot to the ground-level entrance Peter remembered the other planet-sized graveyards they had visited. The inhabitants of those worlds had been humanoid in the majority of cases, but some of the others had been visually unpleasant. But in each instance they had built civilizations for themselves that were rich, stable, peaceful and, by Earth standards, extremely long-lived. They had matured early and given up such childish and destructive pursuits as war and racial or religious/sociological discrimination while they were still young. Their cultures had been nice places in which to live—and perhaps a

pleasant life was all that any life form could reasonably expect.

"Sometimes," Peter said suddenly, "I think we'll never grow up."

"That could be a better way to live," she argued, "than growing up too soon and having nothing to live for but the contemplation of the racial navel."

JAN'S FIRST instinct was to argue, he thought tiredly, and it always had been for as long as he had known her. But nowadays the arguments were lifeless, hopeless and petty instead of being the intellectual challenge they once had been. He relaxed his grip on her hand, but she tightened hers and would not let go.

She said, "Species with a long period of gestation and pre-adolescence have a much greater potential for development than—well—alien butterflies. Maybe we aren't really stupid, just too young to know any better. And now we may have passed the post-puberty stage and have left home to look for a mate. An intellectual mate," she added. "I was speaking figuratively."

"I realize that," he said and laughed in spite of himself.

"I'm sorry," she continued, in a tone that was both apologetic and defensive. "From the very beginning I warned you that I would always speak my mind and tell you whenever I thought you were

wrong. You used to say that my candor was stimulating and— Well, it really doesn't matter. I don't want to win every battle. And we certainly did not waste our time landing here."

He waited until they were outside the building before speaking. The sun was close to the horizon and the bright green mounds of rubble and the few intact structures were bathed in a dramatic orange light—the area had the sharp clarity of a stage set. From all around came the buzzing of the insect audience.

"On the very few occasions when you were wrong," Peter said carefully, "you used to apologize and admit it. This time you apologized without actually admitting that you were wrong, which means that you still think that you are right and that we came down here through my error."

"Oh, let's forget the whole thing and stop fighting. Please."

He shook his head. "I'm not fighting. But if I made a mistake I want to know about it. Show me proof."

"You'll also be annoyed about it for weeks—" She broke off and began looking around carefully, obviously taking her bearings, then she pointed.

"It should be about four hundred yards in that direction," she said. "It could be a patch of diseased vegetation or a trick of the light, but only a searchship makes a mark like that and I caught a

glimpse of it as we were landing."

H E SAW the saucer-shaped depression as they breasted the next high mound. It was about thirty feet across and carpeted with vegetation whose color was a shade lighter than normal because the grass in the area had been flattened both by the landing and takeoff of a searchship and the new growth had had to struggle through the crushed remains of the old. Many such depressions had been left on this and other worlds in their eighty years of searching.

"Judging by the age of the new growth," he said, "this must have been our first planetfall. But the robot can check it against the known growth rate and give a close approximation of the time of landing. Then I'll know exactly when the mistake was made in the search pattern—if in fact a mistake was made."

She pulled her hand away from his and said angrily, "Don't be so childish! Rather than admit you made a mistake you are suggesting that some other searchship wandered into the galactic sector assigned to us and landed here. That is ten times more impossible than the impossibility of your making an error. Maybe I should instruct the robot to run an ID check on the depression to make sure that it was our ship that landed here."

He had been staring at the ground while she had been speak-

ing, studying the deeper and more well-defined hollows around the circumference of the depression that were the marks left by the stabilizers and landing legs. His pulse was thumping so loudly that subjectively it seemed much louder than his voice.

"Yes. Do that."

"No. *You* do it!"

"My mental state at the moment," he said quietly, "makes it unlikely that I would be able to frame the instructions in a sufficiently coherent manner for the robot to understand."

"You framed that sentence well enough—" she began, then stopped to stare at him. He could see the concern returning and replacing the anger in her face, and he knew that the sunlight reflected on his visor made it difficult for her to see his expression. She gave the necessary instructions to the robot and they stood back to enable it to work freely.

"You're taking this very badly," she said worriedly. "I'm sorry. You don't make mistakes as a rule and this was such a small one that—"

"Promise me one thing," he said very seriously, gripping her arm and squeezing it to accentuate his words. "If at any time in the future you feel like expressing an opinion likely to displease me, or you feel the need to criticize something I have said or done, or failed to say or do, or you want to make an observation about anything impor-

tant or even trivial, go right ahead."

SHE OPENED her mouth to speak, looking completely baffled, but he waved for silence. The robot had completed its investigation of the depression and the markings around it and was making its report.

SOIL COMPRESSION AND CONTOUR OF DEPRESSION INDICATE LANDING AND SUBSEQUENT TAKE-OFF OF A VESSEL OF SEARCHSHIP MASS USING FOCUSED ANTI-GRAVITY THRUSTER OF CONVENTIONAL TYPE, said the precise, mechanical and toneless voice in their suit phones. CONDITION OF VEGETATION SUGGESTS ELAPSED TIME OF TEN WEEKS. RESIDUAL RADIATION AND DEPTH OF MARKINGS LEFT BY STABILIZERS AND LANDING SUPPORT STRUTS CONFIRMS MASS FIGURE FOR SEARCHSHIP. CONFIGURATION OF STABILIZERS AND LANDING SUPPORT STRUTS DOES NOT CONFORM TO ANY EARTH VESSEL TYPE ON PAST OR CURRENT RECORDS. IDENTIFICATION OF THE VESSEL IS THEREFORE IMPOSSIBLE.

She turned toward him and said warmly, "I'm glad you didn't make a mistake—" Then she stopped as the implications began to sink in.

"It also means," he said, "that somebody else is searching for people and finding graveyards. It means that somebody else has discovered the stardrive and is using a conventional antigravity

thruster for takeoffs and landings—probably because there is only one way to build the thing.

"It means," he went on, "that we will have to go on searching for long-dead civilizations, because they were the only kind that signaled their presence over a period long enough to attract the attention of ourselves and the other searchers. It also means that instead of robbing graves we carve our initials and a message on them—more accurately, we will devise weather and insect-proof radio beacons containing data on Earth and its position in space. We will scatter them over the new worlds we find, as well as the ones we have already covered, because we have no idea how many of them have yet to be visited by the Others.

"Most of all," he ended jubilantly, "it means that one day a beacon will be discovered and opened by people who, like us, were not content to sit and wait."

Suddenly they were hugging each other, a ridiculous and senseless thing to do considering the thickness of their protective suits. But it did not matter. Her face was younger than he could remember for a great many years—more animated and vital. She was looking, he realized suddenly, the way he felt—as if he had just undergone rejuvenation.

Gently he pushed her away from him and said, "Let's go back to the ship, dear. We're wasting time."★

MICHAEL G. CONEY

THE GIRL WITH A SYMPHONY IN HER FINGERS



***Joanna's hands held miracles
for any woman who owned them***

I

WE PICKED the pieces of Harry Alberni out of the cold green water of the Strait early one September evening. We laid him on the deck of the slow, rolling double-ender and gathered around to hear his last words, if he were capable of uttering them.

"Make for port, Sagar," somebody said, voice canine with urgency. "Give the man a chance. What the hell are you thinking about?"

The water was dribbling away from Alberni's clothes into the scuppers and his broken body rolled with the motion of the boat, like a jellyfish dressed in sling-glider's clothes. But Alberni was going to speak. I knelt down, bent over him. The others, Freeman and State Prisoners alike, were silent, watching, listening. Nobody had ever listened to Alberni before. Why should his words have this new special value merely because he was dying?

Alberni spoke, the words little whispers, puffs of evanescent steam

in the September air. "It hurts like hell, Sagar," he said.

We all knew that. We could see it in the lines of his face, in the grotesque attitude of his body. The steel spinal support, worn by the sling-gliders to guard against just such an accident as Alberni's, was twisted, projecting from under his body like a compound fracture.

"We've got no dope, Harry. I'm sorry. I just brought a few people out for the afternoon to watch the gliding. I didn't expect—"

There were tears in his eyes. "Oh, God, I didn't think it would be so bad. Why the hell should it hurt so much?"

There was a rescue boat in sight now, skipping over the waves. I looked at the eight men standing above me. Their faces showed concern of one sort or another. Tranter, the man who had wanted me to head for port, was still fidgeting, face twitching as his eyes flickered from Alberni to the approaching launch. I didn't know the other men, but I could place them. There were two worried Freeman whose afternoon's pleasure had been spoiled—or fulfilled—by the tragedy. And there were five State Prison men. Two were immediately identifiable by their dark green coveralls, marked S.P. in large white letters front and rear. The other three . . .

Like their uniformed comrades, they were smiling.

That's was how I could tell what

they were. They were bonded men under the care of the three Freeman, so uniforms were not necessary. But they were smiling as a Freeman died—and that was uniform enough. The penal laws had divided mankind into two classes.

I could hear the rescue boat now—that bouncing, thumping whine of fiberplast and turbines hopping waves. I turned back to Alberni and for a moment I thought he heard it too, because his eyes had widened and he was regarding the sky intently. But there was no change in focus as my head cut off his view.

I stood up as the rescue launch cut engines and fell to the water, slowing abruptly and wallowing toward us in a wide turn. Fenders bumped lightly and two men leaped to my deck.

"Alberni, is it? How is he?" The mediman had set down his bag and was already selecting a hypojet. The other man was a bonded State Prisoner and he was staring down at Alberni with an intensity that told me he was Alberni's man.

Two men, bonded together in unequal partnership until death intervened—or the senior partner canceled the contract . . .

"You're too late," I told the mediman.

He shrugged and turned away, but the S.P. man remained, gazing at the body, his expression changing to one of incredulous, transcendental joy.

"You bastards!" he shouted, a high cracked yell of ultimate delight. "I've beaten you all, you bastards!"

He climbed back aboard the rescue launch. His contract was over. He was a Freeman. I heard him laughing as the stretcher-bearers arrived and scooped up Alberni.

BY NOW the curious had gathered. Half a dozen boats, large and small, bobbed around us as the occupants strove to get a glimpse of death, craning necks, tiptoes, hanging from forestays. Off the port bow the bright remains of the sling-glider drifted away like a dead macaw.

I heard someone whisper, "Carioca Jones—"

The 3-V star's hydrofoil was there, idling beside the splintered alloy and torn fabric. The boat was about thirty feet long, sleek and black; across the stern the name *Flambuoyant* was painted in luminous white letters a foot high. Two women leaned against the stainless steel after rail, gazing at the wreckage. I recognized Miss Jones, although she had been absent from the 3-V alcoves for several years—there was no mistaking that long hair, sprayed midnight with ultrasorb, falling past her downturned face, like a frozen jet cataract. She seemed to be wearing a tight black sheath dress, thigh length. A land shark lay at her feet.

The girl by her side was by con-

trast fair and her hair was short. She looked across at us and smiled slightly, ruefully, as though to say: *This is what you get for indulging in stupidly dangerous sports.* Her eyes were blue and she had a snub nose and, I'll swear, freckles. Her youthful appearance was belied by full breasts beneath the amateur sailor's blue pullover.

I saw all this briefly, very briefly, because nobody looks away from Carioca Jones for long. The star had shifted her position as her boat drifted nearer—the wind threw a curtain of hair across her face and she shook her head. The light-absorbing strands parted, revealing—startling and dark-tipped—her bare, pale breasts. On a late September afternoon. I think every man on my boat drew a sharp breath as desire punched him in the stomach.

She sensed us. That sort of woman always does—it's basic. She sensed us and looked up as a female animal hearing a mating call. And her eyes met mine.

She was old, horribly old, and her black eyes knew me for a necrophile.

This was the end of summer, when everyone on the Peninsula tried sling-gliding and some fared better than others. I had tried it myself, once, borrowing the gear from Doug Marshall and being lucky, because gear must be individually tailored and an incorrectly balanced glider can mean death.

After that one try I kept my feet on the deck and spent the weekends cruising spectators among the Gulf Islands in my ancient double-ender, while the tiny bright gliders fled silently across the sky like swift paper darts.

After pausing for an instant to gather the appreciation to which she was accustomed, Carioca Jones turned away from the rail and sat down beside the other girl in the cockpit. I heard the faint silver tones of an orchestrella. A weather-beaten adonis in S.P. coveralls handed them drinks, then took the wheel and gunned the motor. The craft leaped away, climbing its hydrofoils like stilts.

"Lucky guy," said a voice. It was one of the Freeman. The State Prisoners had not ventured any comment. "What a way to serve your sentence—" He laughed tactlessly. "Almost makes crime worthwhile, eh, Tranter?"

Tranter, the officious type who had tried to take command when we picked up Alberni, grunted. "Not like you think, I reckon. They say she's queer. Shops around, too. That blonde's the latest. Nice looking kid. Pity."

Somewhere, somehow, there is always someone who will claim personal knowledge of the homosexuality of a public figure. Tranter was talking garbage, a proclivity of his type. There had been nothing queer about the way in which Carioca Jones' eyes had met mine—

I still felt faintly nauseated.

BY MONDAY morning I had forgotten about Alberni, Tranter, Miss Jones and the rest of them, and was back in the weekly routine. I was standing at the window looking at the frosty morning when I caught sight of a movement among the bushes on the opposite side of the tiny bay. Then there was stillness again and a noise from the sea and after a while Doug Marshall's boat came past, towing some fool on water-skis with a sling-glider strapped to his back.

For a while I cursed Marshall for waking the entire neighborhood—he represented a tangible scapegoat for my having to get to work. Then I pulled on my clothes, gulped coffee and stumbled outside. Silkie ran to greet me, pink with happiness and uttering the high-pitched whine that is the slithe's way of exhibiting delight. I picked him up, stroking his incredibly soft skin while his reptilian eyes regarded me with cold joy. I carried him to the factory gate where Dave was waiting. He looked as though he had some personal complaint so I thought it best to make trite conversation, fast.

"Dave," I said. "I saw Carioca Jones yesterday."

"She's moved in, over Deep Cove way." Dave Froehlich knew everything that happened on the Peninsula. "I was meaning to tell you. You ought to cultivate her."

"Have you seen her? Close to, I mean?" I gave a short laugh.

He regarded me steadily. "She could be a customer, Mr. Sagar," he said.

The factory was emerging from the mist, a gaunt timber structure at the waterside, its cedar shingles silver and black with age. Through the windows I could see uniformed men working. Behind the building, merging into the bushes, were the slithe pens where the little reptiles scuttled.


"Look here, Dave," I said suddenly. "I saw a slithe in those bushes over there earlier, from my window. They're getting out again. How the hell do they do it?"

"I'm sorry, Mr. Sagar. I'll get George to inspect the pens again." His face was wooden.

"Forget it, for God's sake." A phrase came into my mind, a phrase from decades, centuries ago when educated man found that he was surrounded by equals and invented class distinction to fill the gap. The phrase: He Knows his Place.

Dave Froehlich Knew his Place and, by God, he was never going to let me forget it.

He was my personal bonded State Prisoner for a period of three years—the standard sentence for embezzlement of a sum of not more than two thousand dollars, which was Dave's crime. I think I am a reasonable master. I provide him with accommodation and pay him a



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small amount for pocket money, which is more than many bonded S.P. men get. In return, he must make himself useful to me in so many ways that one wonders at the possibilities of misuse of the penal code . . . But at least the moral is clear. Stay honest.

The other men, those uniformed goons in the factory, are not so lucky. I hire them from the State at an hourly rate. They receive no pay themselves and they live in the prison. They are little better than cattle. If they behave themselves—if they are lucky—someone might like an S.P. man enough to take him on bond—which means his sentence is automatically commuted by one-third.

"Maybe you ought to realize just how damned lucky you are," I once said to Dave.

"Maybe," he grunted, peeling a slithe.

"I suppose you'd rather go back to the old system," I said with some heat—it was one of those bad days. "You'd like to sit around on your tail doing nothing all day, kept by society. Is that what you're saying? You're saying that because you stole somebody's cash you've got a right to a three-year vacation?"

He flushed and for once I had him going. "I made one mistake, Mr. Sagar, just one. Okay, so I've got to pay for it. But the way things are now—you own me. You can do what you like with me. It's degrading."

The slithe skin was hanging from his fingers—he released the reptile, dropping it over the wire into one of the pens. I glanced at the fine, almost transparent skin the slithe sheds every six months or so. It possessed that grayish, curiously inert look that is characteristic of the unattached skin—a sort of waiting look, waiting for a host, waiting for an emotion to latch on to.

And where Dave's fingers touched, the skin glowed bright blue.

Just a small area, the size of a fingerprint—but it told me what Dave was thinking, what his emotions were concerning me, concerning everything. It showed, just for a moment, that Dave hated—and there was no way he could fool that membrane.

IT TOOK us an hour or more to examine all the netting, repair the holes and retrieve the escaped slithes, and by that time I hoped Dave's mood had improved because no one can go on hating forever and he was a damned good foreman. I think this latter asset of his was the reason he was almost smiling as we dropped the last slithe back into its pen and relaxed. He has the interests of the farm at heart and will be truly glad when his time is up and he can stop hating and take up that partnership I've half-promised him. We walked slowly toward the factory.

"Hi, there! Have I come to the right place?"

I swung around and saw her standing at the gate. Maybe leaning against it would be a more accurate description, leaning in just such a way that the top bar pushed into her breast and made me think of her as a woman, not just as a person wondering if she had come to the right place. And from the direct stare I got from those aged and ageless eyes I knew she knew there was no mistake.

Beside me Dave drew a sharp breath and I tried not to look at the skin he held.

Instead I looked at Carioca Jones and said: "I hope so. I'm Sagar and this is my slithe farm. Can I help you?"

I moved to open the gate but she was already through, twisting to shut it behind her, then smiling directly at me like a death's head. "What Sagar?"

"Joe."

"I'm Carioca Jones. Didn't I see you—"

"Out in the Strait yesterday. I'd just pulled the body of Harry Alberni out of the water," I said brutally.

"God, did he *die*?" She was an actress. Her expression of horror at the death of a perfect stranger was well done.

"It was an accident, one of those things. The mediman didn't get there in time. Nobody could be blamed."

The Flymart landed in the yard, rattling off a list of the day's bargain offers almost before the rotors had stilled. The hatch slid open, displaying shelves of groceries. I handed my list to Dave and moved away from the din, drawing Miss Jones with me. Today she was wearing a sober brown, neck to knee, and I briefly thanked God for this sane September Monday morning.

"So these are the slithes. I've heard so much about them. Where do they come from?"

"They're imported."

"Slithes. What a curious name."

"Lewis Carroll. From slithy, meaning lithe and slimy. I think it's quite apt—but it tends to distract from the fact that they're pleasant and friendly little things. And unusually intelligent for reptiles. Silkie, now—" I picked up my pet, still pink, and held him out to her. She reached out a tentative finger and prodded him behind the ear in that slightly embarrassed manner of the nonanimal-lover.

"Oh, look at that. He's changed color!"

"They do. That's their attraction."

"Yes, I suppose so. It's funny," she laughed girlishly, "I'd never thought of the animals changing color. I mean, I knew the skins changed color, that's what they're—uh—for. But the animals—I'd never really thought about animals, you know."

She thought the skins grew on trees, was what she meant—if she'd ever thought of trees, that is. But she looked more like a customer every minute. I continued my spiel, which had been interrupted by Silkie's involuntary display of distaste. "The chameleon effect fulfills a number of purposes for a slithe on its home planet. It's a mating display, for one thing. When the animal turns pink it's letting the love object know of the attraction. Then, as a defense mechanism, when the slithe feels itself threatened it will turn a livid purple in an attempt to frighten its enemy."

"How positively fascinating, Joe."

"The skin holds the secret. It's triggered by changes in the body, by heat, sweating, adrenalin or whatever. But the most remarkable thing is, it lives even after it's been shed. Put it against human flesh and it's sensitive to human emotions."

And, I refrained from saying, slithe-skin has learned some new colors, that way.

II

WE ENTERED the small showroom and she admired the displays, fingering the bandanas, kerchiefs, muffs, pendants, wristlets, all those things women wear when they hope to display an affection they are too shy to put into

words. Or—as frequently happens—when they are so completely exhibitionist that they want to parade their emotions—any emotions—in front of the world.

Carioca Jones stood too close to me and handled all these things and turned them pink.

"I want a dress!" she cried suddenly. "I want a whole dress made out of your skins, and I want it to fit *close*. What do you say?"

"We don't really do that sort of thing," I mumbled as she arched her back over the display counter and looked up at me, her throat wrinkled like a condor's. "There's a lot of work involved in joining skins so the seam doesn't show. And it's damned difficult to match the tones. The cost is out of all proportion. We try to stick to things that can be made out of one skin."

Her eyes had narrowed slightly. "And why do you think the cost should worry me?"

"Well, I—I like people to know what they're letting themselves in for."

"Listen to me, Joe Sagar. I never go into anything with my eyes closed, not anything, I want you to remember that." Abruptly she was smiling again, toying with a slithe-skin bandana which had undergone as rapid a color transformation as I had ever seen—pink, blue, pink, almost as quickly as you can say it. "Make me a nice dress, Joe. I can afford it."

"I'll let you have the estimate to-

morrow if you like, Miss Jones."

She turned away and I accompanied her across the yard to the gate—Silkie trotted at my heels. Her car was parked under the trees; there was a faint sound of music. I opened the door for her.

The snub-nosed blonde was sitting in the passenger's seat, an orchestrella on her bare knees. She wore a light gray sweater and a no-skirt skirt. She looked up and smiled, but her smile was for Carioca Jones. The music changed tone, became gay as her long fingers shifted and worked inside the egg-shaped instrument.

Somehow I managed to bid Carioca Jones a polite goodbye. Then the car rose from the ground in a swirl of damp autumn leaves and glided away, taking the girl and the music with it, leaving me with the aftersight of beauty.

OF COURSE I had to find an excuse to call on Miss Jones—and the blonde—as soon as possible. When the estimate had been completed I persuaded Doug Marshall to take me gliding and contrived to make a clumsy landing near the beach which backs on to the Jones residence. I fought clear of the harness and made my way through the shallow water to the shore, dragging the tiny glider after me. Then I climbed the tumbledown steps above the high-water mark and hurried through the trees in the direction of the house.

I heard the music while I was still among the trees, that melodic, yet unearthly tone which characterizes the orchestrella. For an instant I paused, trying to establish from which direction the sounds came—then I walked on again, turning left through a pergola which gave onto a tiny sunken lawn.

The girl was sitting on a rustic seat, the instrument in her lap. She was totally oblivious of my presence as I stood behind her waiting for a break in the flow of the music, reluctant to interrupt. It was like a setting from an ancient oil painting—the lawn, the shrubs with their late September flowers, the over-hanging trees, the girl all dressed in white—I felt I had stepped into a dreamlike past. So I stood waiting just for a little while and the music flowed on from her sensitive fingers.

At last I recalled myself to the present. I coughed, thinking what an ugly noise it was in the midst of this beauty. The music stopped. The girl swung around, her eyes widening in surprise.

"Sorry to interrupt," I said. "I've brought the estimate for Miss Jones."

"Oh, you startled me. How did you get here? I didn't hear a car."

She had spoken without any particular warmth—indeed, I don't think she recognized me. I introduced myself.

She told me her name was Joanne and for a while I thought

things were going well—then I told her about the glider.

If I had hoped to impress her with my daring, I failed. Her manner became stiff and she made a few pointed remarks about playboys with bonded men at their beck and call. I tried to explain that I normally worked on Thursdays but lacked the nerve to tell her I had come in the hope of meeting her.

"What's going on here? Oh, it's you, Joe. I heard voices."

Carioca Jones stepped down to the lawn.

"I was just telling Joanne. My glider came down off your beach."

"Oh, do you glide? How thrilling."

We made our way down to the beach and I showed her the glider, then Marshall and his man Charles arrived and towed it away. I got out of my wet suit. Marshall glanced at me from the boat.

"Why don't you come up to the house and have a drink, Joe? You don't have to go, not yet. I can run you home. Then we can talk about the dress in comfort. Joanne, you bring him up in a minute or two."

SHE departed without waiting for a reply—after all, who could refuse an invitation from Carioca Jones? Leaving Joanne and me standing on the beach and Marshall grinning at us from the stern of the launch as he headed out to sea.

In fact we were not yet quite

alone. An obscene shape flopped past, undulating like a sealion, and a cold eye dwelt on me in passing. I shuddered, feeling a sudden chill.

"I suppose she keeps that brute around so she can look beautiful by comparison," I observed.

Joanne walked away from me without speaking and sat down on a tree stump, placing the orchestrella in her lap. I heard a few sad chords.

"Is it any good my telling you Carioca is a fine person?" she asked quietly. "A lot of people don't understand her, you know."

"Why did she go off like that?"

I saw the paleness of her face as she looked up and from her voice I imagined she might have been smiling again. "She doesn't want our company right away. I rather think she's going to—change into something more suitable to entertain a male visitor."

"She's wasting her time. I didn't even notice what she had on just now."

"Didn't you," murmured Joanne wonderingly and began to play. I could just make out the whiteness of her fingers shifting as they caressed the interior of the instrument and the melody flowed all around, bathing us like the warm sea of a tropic summer as we sat on the chill September beach.

She played for a long time, although it seemed just a moment—I knew this because suddenly when she finished it was very dark and I

remembered we were supposed to be up at the house. Joanne remembered at the same time—she jumped to her feet with a gasp of alarm and I climbed stiffly from my heap of driftwood. We hurried up the path, the wet misty webs of the night spiders drawing cold lines on our faces.

The house was ablaze with light. I hesitated as one does before entering an ominously large and noisy party.

"I could do with a drink," I muttered from force of habit.

Joanne laughed. "You'll get one—don't worry." She hesitated. "In fact I'll get you one myself. I think Carioca still isn't ready."

A hint of stiffness, of embarrassment, in the way she said this last caused me to look at her, then follow her gaze to an upper window. Miss Jones moved past, whitely naked in the brightness. We went into the house and Joanne made me sit on a low, receptive chesterfield. "Because I rather think Carioca will want to sit next to you," she said with a real, genuine grin. She brought me a scotch and ginger.

It was a large, comfortable room—the motif was based on the historic Western Seaboard Slide, in common with many of the Peninsula residences. I suspected the featured spiral staircase came from the liner *Princess Louise*—now a hotel twenty miles inland—and the floor was original sediment. Polish-

ed and glazed, the rich brown ooze showed a multitude of species of marine life which had been stranded decades ago when the tidal waves swept over the low Peninsula.

"Look—ah—Joanne, what exactly is your function here?" I asked bluntly.

"Carioca would call me her companion," she replied, unoffended. "I suppose I'm a sort of agent, bodyguard, secretary. I just keep things ticking over, I guess."

"Does she work much now?"

"Oh, now and then when she feels like it—not a lot. Hardly at all, I suppose. Oh, hell. If you really must know, she doesn't work. She's not in fashion now, if you know what I mean. It hurts her. That's why she sometimes seems a little abrupt, you know. She's a wonderful person, really. She's been great to me, like a—like a sister," she said, defiantly daring me to interrupt with a more tactless simile.

"I'm glad you're happy," I said helplessly—there was something disarming about this girl which voided the mind of smart answers.

"Carioca likes to be the center of attention—hadn't you noticed? She always has been and now she's having trouble realizing things just aren't like that any more. I rather suspect," she said sadly, "that her ordering a slitheskin dress is just another bit of compensation. After all, you can't get more flamboyant than that."

A dress a woman wears directly against the skin—and one that reflects her every emotion in its color . . .

"You don't approve of the dress?"

"Not for her. I think it's a shame she has to call attention to herself that way. But there it is. She's used to being the center of attraction."

And when Carioca Jones made her grand entrance a few moments later, I could see what Joanne meant.

FOR a start, an open spiral staircase is a revealing item of furniture for a woman in a short dress to descend. The impression of stark cold metal against warm soft flesh heightens the effect. But, as Joanne had said, it was a shame. It was a shame, I was thinking, that she moved slowly, so slowly down the stairs, maybe because she was getting on in years and didn't want to fall. I wasn't supposed to think that at all. So by the time she reached the bottom and began to make her swaying way across the petrified sediment I was feeling quite sorry for her. And, to be honest, her figure was good—obscenely good—and just about as interesting as one's mother's. I averted my eyes from the exposed flesh.

She held her face up to be kissed—at least giving me the choice of splashdown area. Then she proceeded to chatter away as

though I'd only just arrived, and led me back to the chesterfield.

"Joanne, darling," she cooed, "play for us while we talk, there's a dear. Something nice and slow and smoochy."

I'd only met her once before today and that had been a business meeting. I wondered how she would behave if I were a close friend—and then I wondered how many close friends she had and felt sorry for her again.

Joanne had moved over to a piece of furniture which, at first glance, I'd taken for a 3-V alcove. It was a sort of half-dome which somehow suggested excellent acoustics, or the womb, according to how introverted one felt at the time. Like a quarter of an egg. She moved inside and, I think, sat down—it was hard to tell, as the interior was coated with that new paint that absorbs all light. Then her hands appeared, slipping into the orchestrella which sat on a low stand. The effect was most spectacular—hands appearing from the blackness, holding the instrument.

I excused myself from Carioca and walked over, standing directly in front of the alcove. I still couldn't see Joanne. Only her hands were there, right in front of me, caressing the orchestrella. It was uncanny. Then she began to play, disembodied hands moving, astral music filling the room, and I returned to Carioca with some reluctance.

"Well," she said, smiling. "Now here we are. Isn't this delightful?"

"That's an interesting piece of furniture you have over there."

"Quite, but we don't want to talk about boring old furniture, do we? Tell me about yourself, Joe. Why does a man like you hide himself away among those funny little animals?"

"It's a living." The music, which Carioca had intended to remain background, had impressed itself on me by its sheer power and beauty. I couldn't help but listen to it. "Has Joanne ever thought of taking that up professionally?" I asked.

"My dear, why should she need to when she's got me?" There was more than a hint of acid in her voice.

"She's very good."

"Oh, let's forget Joanne, for heaven's sake, Joe. I didn't invite you here to talk about her."

The trapped feeling flustered me and I said something foolish. "What did you invite me here for?"

"Well now, aren't you the forceful one?" She edged closer, all thighs and shoulders. "I asked you here because I like you, Joe. And because you're making a nice dress for me—" Her voice hardened again here and I took the point. The dress was far and away the most profitable order we were likely to get this year, and it looked like being a long, hard winter.

"I'm very flattered, Miss Jones."

"Carioca."

"Can I get you a drink?"

"Oh, not now. Not when you're just going to tell me all about yourself . . ."

So I sighed silently and began to tell her my life story, making it as interesting as possible in the hope that she would concentrate on the abstract past instead of the physical present. I don't think I succeeded, because her eyes were on my face for the whole of the time I was speaking, which is unusual for the recipient of a life history, no matter how fascinating. I would look away, visualizing some incident from the past as I described it, and every time I looked back at her those dark eyes were fixed on mine like mating slugs. If I looked at them too long I couldn't see the hardness of the face and the wrinkles, because eyes themselves are moist orbs and nothing more—so, hypnotically, they would become young as I watched.

I averted my gaze again, removed my hand which somehow seemed to have got on her shoulder and the music intruded again and I was saved.

"But how can you make the dress if you don't know my measurements?"

"Just lend me a dress. Any one that fits. I'll take it with me and let you have it back tomorrow. Or the next day."

"Oh, but that's most unsatisfactory. I want to be sure it's right. It's

going to cost a lot of money."

"There's no hurry," I said desperately as she jumped up and began to make for the stairs, presumably in search of a tape measure. "I have to keep a bunch of animals together for at least three weeks so that they get attuned to each other's emotions and the skins match up when they shed them. Otherwise the dress would look like a patchwork quilt."

I WAS wasting my time—she was already out of earshot. I heard a chuckle clearly among the music and looked quickly toward the semidome.

"For God's sake come and help me out, Joanne."

In answer the music swelled to a derisive crescendo with undertones of *The Wedding March* as Carioca began her descent of the staircase. "Here!" she cried. "I've found a tape measure. Now we can get it over with. Come on!"

She took my hand and pulled me to my feet—or more correctly, I got up before she landed in my lap. She led me to a darker corner of the room, out of sight of Joanne. "This will be fine, here," she said. "I'd ask you to come up to my room, but it wouldn't be quite right, would it?"

Suddenly I wasn't worried any more. She had no thought of getting me into bed, whatever impression she might give. She was

Carioca Jones, playing her part. She was a born exhibitionist and it had been quite a while since she had displayed herself. Now she was virtually alone with a captive audience and she was going to make the most of it. Was I feeling sorry for her again? Maybe, but I was annoyed, too. She was using me, taking me for a ride.

The music changed.

"After all, the dress is worn next to the skin, isn't it? So the measurements have to be taken next to the skin."

A most repulsive creature was humping its way across the vitrified past in our direction.

Joanne was playing Duncan's *Allegro in E*.

"I've always thought that's one of the most uplifting pieces ever composed, haven't you, Miss Jones? And doesn't Joanne play it well? So lively. My God, it makes you want to do calisthenics."

She wriggled back into her shoulder straps instantly, coloring. She strode across the floor toward the semidome while I hurried after her, fearing mayhem. The land shark snapped at my heels, dislodging a shoe.

She held the orchestrella before me. Her voice had become quiet, very quiet. "It's quite easy to play, Joe, and very interesting. I used to be able to play it myself, one time, but you need young hands for that. Soft, like dear Joanna's. You see—" she plunged her fingers into

the holes in the egg-shaped instrument—"the depth of the fingers—how far you push them in—controls the pitch. The position of the fingers, which dies of the holes you press, controls both tone and volume. Each finger can produce a sound like a violin, a piano, a guitar, a drum, even. Ten fingers—a ten-piece orchestra in the hands of an expert."

Her hands were hooked into the instrument like talons.

"I'm afraid my hands aren't what they were. The sensitivity has left them, you see."

Joanne's face appeared from the blackness of the semidome, stricken.

"No, nowadays I'm just a little bit ham-fisted."

The orchestrella screamed in discord as she squeezed and kneaded. Then it was silent.

III

ITREATED that team of slithes like children. Immediately after Carioca Jones placed her order I had chosen ten prize animals and Dave had built a separate pen for them, complete with heating in the hutch and a temperature-controlled pool in the small yard. It's odd, the way we tend to regard the animals from a human standpoint. In point of fact, it didn't matter a damn whether the slithes were happy—the important thing was that they all felt the same. If one of them had

a bad day it was better that they all had a bad day.

Very soon I found that my slithe team needed to be strengthened—something I should have known from the start. It takes more than ten slithes to make a tenskin slithe dress. The first disaster occurred two days after my fraught evening with Carioca Jones.

The morning mist was cold and hung in beads from the chicken wire of the pens. I don't know what prompted me to look out through my window at six A.M.—or even get out of bed. Maybe I heard something. Anyway, as I gazed on the peaceful scene I saw a movement among the hutches.

Slithes tend to become torpid toward winter—that's why it's better to heat the hutches. If exposed continuously to the cold the creatures will virtually go into hibernation and that means no skin-shedding. So there is no way a slithe will be moving about his pen in the early morning—in common with myself, they are late risers.

Soon I stood dressed and, shotgun in hand, in the yard. I looked around, hefting the gun. They can say what they like about the advantages of the fanbeam laser rifle—it has none of the excitement of the good old-fashioned twelvebore with its thunderous discharge and wicked recoil. At this hour of the morning I was itching to kill and to have killed quietly and efficiently would have been no sop to my temper

whatsoever. Something was prowling around my pens and I wanted to blast it to hell.

In point of fact it was an otter. He came around the corner of the prize hutch in that swaying, low-slung run which is not quite a scuttle, and in his mouth was struggling a member of my hand-picked team, vivid yellow with fear.

The otter saw me and stopped, looking at me from bright, knowing little eyes as I leveled the gun at him. It was blackmail. I couldn't shoot, not while he had the slithe. I watched him and he watched me and at the same time I tried to see where he had got through the chicken wire. Then I saw a tiny gap where the mesh met the damp soil. I reached it before he did—he dropped the slithe in order to bare sharp teeth in a snarl and came on. Although he couldn't have been more than eighteen inches long, he looked savage and relentless and I backed off. I had always understood otters were playful creatures, spending their time sliding down river banks on their fannies. This one was acting out of character and it threw me. I had forgotten the shotgun, it was man to man stuff now.

Uttering a vicious hissing noise he came under the wire, threw me a contemptuous look as he passed, trotted across the yard and disappeared among the driftwood on the shore. I called it an honorable draw, because I had the slithe.

I entered the pen and picked up the reptile. His skin was still yellow—it looked as though it had been permanently dyed that way.

I tried. I put him back with the others and gave him a couple of days to recover, but it was no use. The fright had had a traumatic effect on him and his presence made the others uneasy. He could not lose the yellowish tint, which individuals in the rest of the team were taking as a warning signal, causing their skins to fluctuate in unhappy sympathy. In the end I removed him and placed him in isolation.

As a result of this event I doubled the size of the team. I could now afford ten individual disasters without threat to the dress project and a large, communal disaster did not matter unduly, provided all the animals suffered the same.

CARIOCA Jones came to see me the day after the otter incident. By the time I was told she was around she had already pumped Dave and was leaning over the prize pen in proprietorial manner.

"Hi, Joe, darling. Your man tells me these are my creatures."

"That's right. A fine bunch of animals. I picked them myself."

"But aren't they a bit variegated, Joe darling?" Her sharp black eyes scrutinized the tiny herd as the animals crawled about. "It wouldn't do for Carioca Jones to go dressed in motley, would it?"

"I told you. They have to get used to one another."

"Oh, dear, they're not like us, are they? I mean, we sort of hit it off immediately, didn't we? I think you felt that, too, didn't you, Joe?"

"Of course. Look—Carioca. Unfortunately I've got a hell of a lot to do—"

"But I understand! I've only dropped by for a minute, Joe. I thought we might get the fitting done."

One of the State Prisoners was fooling about nearby, sweeping up or whatever the unbonded men grudgingly do when they see me around—and he glanced at me sharply. Carioca had opened a minuscule purse and was dangling a tape measure, which I regarded as one regards a krait. She was smiling knowingly. That damned measure was becoming almost symbolic.

So I took her into the house and, unchaperoned, got it over with—the measurements, I mean. I don't think she really expected anything else. She just had that knack of making anything appear sexual, which was why her career had been so successful and why it was over, now the bloom was gone. Sad? It was almost pathetic—I kissed her briefly as a compulsory compliment and got her out of the house.

"Well now, that wasn't so bad, was it, Joe?"

"Uh."

"I'll get out of your way now. I've

got to go into town and do some shopping. I wonder—How would you like to come along? It would do you good to get away from this smelly old farm for a while. Eh, Joe? Maybe we could have a drink somewhere."

She had dropped the overemphasized manner of speech, she had dropped the coquettishness, she was suddenly, genuinely trying to get through to me. She was lonely and she wanted company for the rest of the afternoon. I wondered what had gotten into her, then I remembered the episode of the orchestrella.

"Where's Joanne?" I asked. I hadn't wanted to say it but I had to know. Her answer might explain something. It did. Her gaze shifted—she looked away.

"Back at home," she said.

So there had been a split-up—not surprising after the orchestrella incident. I wondered if Joanne were packing her bags and leaving and I think I felt lonely, too, then.

"I'm sorry, Carioca," I said. "I'd like to come. But I've got a hell of a lot to do here, like I said. Maybe some other time."

She smiled. "You really mean that, don't you, Joe. How nice. We must make a date sometime."

"Great."

I walked with her to the car and held the door for her. She couldn't resist vouchsafing the usual thigh display as she got in.

Then she looked at me and said

in completely flat, neutral tones, "I must hurry. I've got to buy an orchestrella before the stores close.

I've often wondered about the way she said that. I've tried to visualize the moment, the way she looked, her tone of voice. And there's nothing I can pin down, nothing that might give me a clue as to what her intentions were that September afternoon. Nothing to tell me whether I was terribly to blame for what happened subsequently.

Was she saying she was sorry? At the time I thought so, but then, she is an actress.

THE car rose and whined off and she was gone. I was left thinking about Joanne again, as I did so often. And thinking about Joanne and the wrecked instrument, which it seemed Carioca had achieved the decency to replace—I suddenly thought I might make some recompense also. After all, I was partly to blame.

I went into the factory and gave Dave careful instructions. I wanted to give Joanne a present; not something ridiculously expensive like Carioca's damned dress—just something small and appropriate.

But as I went outside again, feeling Dave's amused gaze on my back, I wondered if maybe I just wanted to be around when Joanne wore slitheskin for the first time.

I was so engrossed in this speculation that I jerked in dangerous

proximity to heart failure when her voice spoke right next to me.

"Good afternoon, Mr. Sagar."

"Uh, God. I didn't see you arrive, Joanne. Call me Joe. What—how did you get here?"

"Oh, I borrowed a car. Look, Joe, have you seen Carioca?"

"You only just missed her."

"Did she say where she was going?"

"Town. She was—" I stopped in time; maybe the orchestrella was supposed to be a surprise. "Is it anything urgent?"

"I don't know." She hesitated. "We haven't spoken very much, you know, since— Then she went off this afternoon without saying a thing, not a thing."

"Don't worry. She was perfectly normal when I saw her."

"Oh, thank goodness." She looked around at a loss. "Well, I must get going. I'll see if I can find her in town. When we—when we go together, we usually split up for shopping and meet at the Princess Louise bar, at six. That's where I'll find her, I'm sure. She'll be there."

"Joanne, I tell you, she's okay." She was fidgeting around and twisting the strap of her bag between her fingers and it was driving me out of my senses. I mean, here she was on my home ground and all we could talk about was an aging 3-V star who was more than capable of looking after herself. "Come in and have a drink, why don't you?"

"Oh, no, I couldn't. Really—"

Briefly I wondered just how serious the row had been that had turned my calm, serene Joanne into this nervous wreck of a girl—yet had left Carioca virtually unmoved. I had my suspicions, of course, but I didn't want to think about them. I mean, I was once again fighting the gathering notion that Joanne was not quite normal, if you know what I mean. And she was so pretty—it would be such a waste.

"I'll come with you," I said. "We can all have a drink."

But with luck, I thought, we won't be able to find Carioca Jones . . .

THERE was a lot of traffic about—by the time we parked it was five forty-five. I suggested to Joanne that we go straight to the Princess Louise and she agreed. Soon we were sitting in the period atmosphere of polished brass and varnished mahogany, drinking scotch.

Time has been kind to the Princess Louise. The records of its arrival are sketchy as the ship's log was destroyed—along with the entire crew, so it is said—at the time of the Slip. I imagine it was very soon afterward that it was discovered by the few survivors of the tidal waves which had cleaned any other form of shelter off the surface of the Peninsula. These frightened wrecks huddled in the beached liner for months, maybe years, until they gradually drifted

back into communication with the rest of the world.

Their first contact doubtless came by means of the roving bands of Indians who had hunted the more northerly areas since time immemorial. By then, it is supposed, the Princess Louise had become a village in its own right. Then suddenly the world returned and a city grew around the beached wreck. And with the arrival of people, history began to move forward again on the Peninsula.

Joanne was loosening up a bit. "I expect she'll be here in a moment," she said.

It was a start. And it was the point when I should have said something about hoping Carioca would be late because it was so pleasant with just the two of us, don't you think? But somehow I couldn't seem to get going. I'd never had any real conversation with the girl; I didn't know what her beliefs were, her views, her tastes. As far as I knew, we had nothing in common. I was merely violently attracted to her physically. And I didn't think we had that in common, either.

So I didn't know what the hell to say to her and the minutes were rattling away and Carioca would be here any minute.

And damn it, the only thing we had in common was Carioca. "Look, I'm sorry if there was some sort of trouble," I said, expressing frank manly sympathy. "I feel part-

ly to blame, you know."

"I—I don't see why."

"Well, you know—I was maybe a bit tactless praising your playing, knowing Carioca can get jealous. I didn't think."

I had her attention now. "I haven't noticed she's particularly jealous," she said. "She likes to be the center of things, yes. But jealous?" At last she grinned, a good straightforward grin. "I think she was annoyed because she wasn't getting what she wanted, so she took it out on me—or rather my orchestrella—" She hesitated oddly then, and the grin faded.

"I'm not sure she—uh—wanted anything. She just wanted me to think she did. It was an act." And it could be a dangerous act—this was when I experienced my first real twinge of uneasiness about Joanne's position. She was incredibly naive. "Can't you see what she's really like, Joanne?"

I had lost her again. "I know what she's like, and she's always been very good to me."

She was loyal to Carioca Jones and she was damned if she was going to denigrate her in front of a comparatively casual acquaintance like me. Apologetically I reached across the table and put my hand over hers.

That was the moment Carioca Jones chose to arrive. As I tried to collect my thoughts I recollected that I had told her previously that I was too busy to come out.

IV

I OFTEN saw Carioca Jones during the next few weeks and when we met her manner was strange, although not unfriendly. She never referred to her meeting with Joanne and me at Princess Louise—or the public scene that had resulted. She dropped by every few days to check on the progress of her dress and chatted pleasantly about the promising appearance of the slithes. By now the little reptiles were identical in their reactions—it was a pleasure to see them all change color, instantly and simultaneously, from dull brown to warm pink when I approached with their food. I calculated they would all be due to shed in a couple of weeks' time and within two or three days of one another.

Carioca was pleased with the progress—she apparently bore no grudge over the Princess Louise episode—yet there was something odd about her attitude. An air almost of suppressed excitement—which I took to be anticipation over the dress—and something else, something almost possessive in the way she looked at me. She had dropped the coquettish approach in favor of a more confident attitude. Sometimes when I caught her eye it held the glint of one who beholds a prime steak, medium rare. Anticipatory and predatory.

Every time Dave told me of her arrival—she never came straight to

the house, but waited to be announced like royalty—I would hurry out and greet her, always looking past her to where the hovercar was parked. But there was never anyone in the passenger's seat. I'm sure she noticed I was abstracted on these occasions and I'm sure she knew the reason, but she never commented. Joanne was a subject we simply did not mention.

Just once she made an oblique reference to her companion. She let drop the news that she was practicing the orchestrella again—I presumed Joanne was giving her lessons. She held her knotted fingers before her as she said this, flexing them as though playing an imaginary instrument. It put me in mind of an eagle stooping on a lamb.

I found an excuse to call on the house, once. I got Marshall to take me for a run in his hydrofoil and persuaded him to anchor off Carioca's beach. He, myself and Charles, his man, sat in the cockpit, drinking, while I kept my eyes on the shore. Marshall was talking about his new glider which he expected to be delivered later in the week. Charles and I listened, although from time to time I caught Charles glancing at me with a faint grin.

"I think I'll just slip ashore for a minute," I said suddenly.

They looked knowing. "Not for longer than an hour, right, Joe?" said Marshall. "I want to get in

some practice later, before the new glider arrives."

It seemed a long time before I was hurrying through the trees but it was probably only a few minutes, such is the time-scale of love. The carport was empty so I could safely assume Carioca was out and that it was Joanne I had seen from the boat. Then I heard the sweet sounds of an orchestrella being played as only Joanne knew how. I slipped through the open french windows and crossed the floor quietly. The interior of the semi-dome was the antithesis of light but I could see her hands stroking a new and ornate orchestrella. I watched and listened for a while—then I spoke. Time was short and Carioca might return at any moment.

"Joanne—"

She stepped from the blackness and smiled at me. "Hello, Joe. I didn't hear you come in. I'm afraid Carioca's gone out for a while, but she'll be back in about half an hour, I expect."

"I came to see you, Joanne."

I had been too direct. A flicker of alarm crossed her face. "Whatever for?"

"I see Carioca's bought you a new orchestrella."

"It's not mine. It's Carioca's. She's learning to play. The one she smashed was hers, too—I'd like you to understand that." She looked around the expensive room.

"Don't be so damned humble,

Joanne. She's not a goddess. It's not a privilege for you to work here. She's just an ex-star, a has-been. You're worth a dozen of her. You're young and you're very pretty. You could be a star yourself if you had half the luck she had."

"Look, Mr. Sagar. There's nothing wrong in Carioca's having been successful. I don't like to hear people wanting to pitch her out with the garbage because she isn't maybe—working so much these days. Look at it this way. She could have been just another married woman, an average housewife. Would you say a married woman was finished—a has-been—just because she's decided not to have any more children? The only person who knows if Carioca is finished is she herself—and judging from the way she is I'd say she's okay—she's fine. She used to be a star but now she's changed direction. She's moved to the Peninsula with plenty of money. She doesn't need to work and now she's well on her way to becoming a pillar of local society, a person whom people want to know because she's famous and interesting. She's narrowed her aims and is specializing. How many people seek you out, Mr. Sagar? How many people make an effort to get to know you?"

I wondered why she was talking like this. I'd seen no evidence of Carioca's sudden popularity. It seemed that everything had gone wrong. I shouldn't have come.

"That's not fair, Joanne. Maybe I don't want people to seek me out."

"Hey, you wouldn't mind though, would you, Joe? You wouldn't mind people pointing you out to each other and saying, there goes Joe Sagar, the world-famous slithe-farmer—" Suddenly she was laughing. "Oh, Joe, why the hell didn't you choose a more impressive name and job?" She looked at me, face flushed, and she was incredibly beautiful, infinitely desirable.

I put my hands on her shoulders. "I'm happy the way I am. I don't think Carioca is. I'm on an even keel but she's on the way down. But I'd rather not talk about her . . ."

I drew her gently toward me. She disengaged herself and walked back to the semidome.

"I'll play for you, not with you, Joe," she said.

When Carioca arrived she found us just like that. I was standing, listening to the music and watching Joanne's hands, because that was all I could see of her.

Two weeks later the slithes shed their skins and a week after that Carioca Jones's dress was finished. I had a female State Prisoner in the factory at the time who was about Carioca's size, so we gave her the dress to try on. When she reappeared she was smiling and radiant and the dress was a warm, uniform pink. The seams were invisible and

the fit perfect. The dress seemed almost to blend with the girl's own skin. She looked a hell of a lot better in it than Carioca would and she knew it.

"Betty, you look fantastic," breathed Dave, popeyed with admiration.

The dress blushed a deeper pink and I rather think something started right there, judging by the look the S.P. girl gave Dave.

It was a pity, but eventually we had to get the girl and the dress separated. I supervised the packing. I didn't want anything to go wrong at this stage. I had previously packed my personal gift to Joanne and I sat looking for some time at the small box, wondering what the hell I ought to write on the card.

I hadn't seen either Carioca or Joanne for over two weeks and had, in fact, been getting nervous over the order for the dress. There had been no answer to my calls and on the one occasion I had summoned up nerve to visit the house, it had been all locked up. I had walked around and peered in at the windows—and things, thank God, had looked normal. I had even caught sight of the landshark and it had seen me and slithered across the floor, thrashed its way onto a chair near the window and looked out at me frozenly, evilly. A pulse had throbbed near its gills where the oxygenator had been implanted. Obviously things had been okay

and someone had probably been coming in to look after the brute until Carioca and Joanne returned.

All the same, I still couldn't understand why Carioca hadn't told me she was going away.

Then, a few days before the dress was complete, her face had appeared on the visiphone screen.

"Terribly sorry, Joe darling, but I had to go away for a couple of weeks, rather nasty, actually. Everything's all right now, though." In the background I caught sight of Joanne moving about and felt a huge relief.

"What do you mean? What happened?"

"Oh, such a silly thing. I was feeding Wilberforce and he bit me and I had to have shots and all sorts of stupid things."

"Wilberforce?"

"You know him, my landshark. He's such a *pet* really, and so good-tempered."

"You ought to have the bastard put down."

"Oh, I *couldn't*. Anyway, I thought I'd better call to tell you everything's all right here. And my dress? Is it finished?"

"Almost. Just two or three days."

IT WAS, in fact, four days later when I called her and told her it was ready. She went into hysterical transports of delight and insisted that I bring it over right away for a ceremonial trying-on. By then it

was four o'clock in the afternoon, so I washed and changed and left Dave instructions to close up. As I drove over to Carioca's place a tingling knot of nervous anticipation centered around my solar plexus. I hadn't seen Joanne for three weeks. I wondered if she had thought of me during that time. I wondered if she would like her present. Then I managed to think business again to the extent of hoping Carioca liked the dress.

The lights were on in the house when I arrived and I could hear the soft sounds of the orchestrella. Twilight was all around me as I hurried across the wet grass, then up the crunching gravel path to the front door, clutching the boxes. The air was chill and damp and I started at a rustling in the bushes; it was probably the carnivorous Wilberforce on a foraging expedition. The front door was ajar and I stepped inside.

"It's me!" I called.

There was no reply so I entered just the same, sure of my welcome now that the dress was finished. The vast living room echoed to the glorious tones of the orchestrella and a drink stood on the table near the semidome. This was something of a royal welcome—obviously Carioca meant me to make myself at home while she slipped into something easy to slip off again. I took the glass and strolled over to the semidome, watching Joanne's pale, beautiful fingers working gently as

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RANDOM HOUSE



she changed subtly from the buoyant tones of the welcoming music into the melody of a tender love song.

For a while I just stood and listened, trying not to think about Carioca and the fact that she had told Joanne what to play. Instead I said to myself: *This is for me. Joanne has chosen this song herself, for me, because she loves me.*

And the way she was playing it, so softly, so expressively, I could almost believe she did. It was not a matter of technical perfection—in fact, I had heard her play more correctly. It was an emotional thing—the occasional uncertainty, hesitancy, only serving to heighten the spell—the endearing tremulousness of a young girl in love. She played it how it is.

At last the slender fingers were still and she was finished. She was waiting for me to say something, but I didn't know what to say.

"Hello," I murmured at last. "That was beautiful."

A pale shadow appeared within the light-absorbing semidome as she stood. She stepped forward and the room lighting fell upon her black hair, accentuating harshly the wrinkles about the eyes, the hard lines about the mouth.

"Hello, Joe darling," said Carioca Jones. "You never believed me when I said I could play."

Just for an instant the room seemed to shake itself about me and my stomach gave one single,

great throb of horror and disgust. I turned away so that she couldn't see the shock in my eyes and clutched at the boxes on the table. Dumbly I handed the larger one to her.

She took it in her young, soft hands and began to undo the wrappings with little squeals of delight, while I watched in fear, seeing the thin scars around her wrists . . .

Dimly I heard Joanne's voice behind me and dragged my gaze away.

"Joe! How nice to see you again. Carioca tells me you've had a present made for me. You shouldn't have, you know."

Joanne was walking across the room, smiling at me, then she turned and watched affectionately as Carioca went into transports of delight over the dress. Then she looked at me again.

"Well, aren't you going to give it to me?"

Of course, I should have guessed. I should have known that Carioca would have a bonded S.P. girl, and I should have guessed that neither the friendless ex-star nor the female State Prisoner would advertise the fact. But I could never have guessed the depths hero-worship can reach.

I was still clutching the small box. I suppose I must have blinked and half pulled myself together, tried to smile and offered it to her.

Joanne reached to take it.

With glittering, steel prosthetic hands.

IDON'T remember leaving the place or getting into the car. I remember being able to think again, to think slowly and begin to understand, somewhere in a suburb of Louise City—and how or why I got there I'll never know.

I stopped the car along the Marine Drive and looked out at the blackness of the evening sea. Something caught my eye on the seat beside me—it was Joanne's present. Why should I blame her? The law gives a Freeman absolute rights over his bonded S.P. man—which accounts for the popularity of dangerous sports, like sling-gliding.

I found then I was watching a glider slipping quietly across the dark sky like a pale, swift bat. Somewhere a State Prisoner would be watching that tiny shape, too. He might be wishing the pilot dead, but he would never wish him injured. And I wondered just how badly Carioca's hands had been bitten . . .

There is a derogatory nickname for State Prisoners based on the initial letters—you seldom hear it but it came into my mind now.

At least I'd had the wit to bring Joanne's present away with me.

What good was a pair of slitheskin gloves to my used Spare Parts girl? ★



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WELL, chillun, respectability has landslid upon us and it would seem that profound changes are taking place in the landscape. I suppose I could have seen it coming by all sorts of evidence—being asked to deliver commencement addresses, for example, and to speak at high schools and colleges, and then the offers to teach.

I write this at Penn State University, during a four-day conference of the Science Fiction Research Association, attended by writers and scholars from all over the country—and from some outside it. Academe has embraced us profoundly and, I think, permanently, with as many shades and varieties of embrace as can be found in that other area. (An interesting analogy and one I think I'll be pursuing as time goes on.)

These teachers and professors and deans, these librarians and biog- and bibliographers take themselves, and us, damn seriously. We writers are being studied and filed and annotated, our early influences, active and passive, searched for, deduced, hypothesized and reported upon. We are becoming

the subjects of dissertations and seminars and whole shelves—possibly whole library wings—will be devoted to us and our works.

I arrived here with a brutally heavy suitcase, half filled with books and galleys in (I fear) a hopeless attempt to reach something like deadline for this report to you. From here I'm off to Cornell for an all-university speech and a class, thence on to M.I.T. The head it spins.

The logical, and beautiful, spearhead of the Penn State affair is Philip Klass, now a tenured professor in the English Department, clearly much loved and respected here, who is, as you surely know, none other than "our" William Tenn. Like many other sf writers, living ahead of his time he has sheltered within the ivy for seven years now and, though happy at this turn of events, is not in the least surprised. Here for the conference are Fred Pohl, Jack Williamson (who was the deserved recipient of the Pilgrim Award for his scholastic contributions to sf), P. Schuyler Miller, Clifford Simak, James Gunn, Jerry Pournelle (president of SFWA), Gordon Dickson, Theodore Cogswell, Roger Zelazny, John Brunner and, from Australia, Bruce Gillespie. I won't list the luminaries from Academe; take my word for it they outnumber the above four or five to one and, in their field, shine quite as brightly. One of them, just

for example, is Pundit/Critic/Author/Professor Leslie Fiedler. The papers being read include scholarly dissections of Silverberg, Ellison, Heinlein, Simak, Clarke. Look at these solemn titles: "A Case of Conscience: Fiction and Reality." "Themes of Arthur C. Clarke and Clifford D. Simak." "Heinlein at 24 Frames per Second: Destination Moon Revisited." "Quest for Unity: The Theme of the Whole Man in the Fiction of Robert Silverberg." As well as many more general scholarly surveys: "Strange Parallels: 18th Century Attacks on the Novel and Modern Censure of Speculative Fiction," and "Philosophical Limitations of Science Fiction."

It is a heady experience indeed to be so warmly accepted after so many decades of ghettoization and (in a way, even worse) amused tolerance. We must be grateful for the good of it, but we (that's a group 'we', not an editorial or a royal one) can be forgiven for taking a good hard look at it. Are there writers who will begin to slant their stuff toward the scholars in the hope of getting recognition? There are. Are there scholars whose prime interest in sf is not sf itself but a new, rich mother-lode for theses and papers and dissertations to help with the promotion and tenure game? There are. Are there text-book publishers so used to the panting eagerness of scholars to appear in print that they

will try to get our stories for free or for a flat fee without royalties, the way they do the scholars'? You bet there are. Is respectability going to make us narrow, unleavened and pompous, as has happened to many classical musicians who have quite forgotten that the active verb in their profession is 'play'? Could be. Some of us *like* to be pompous. In short: will the embrace smother us?

I don't think so. Above all, there's just too much *chutzpah* in sf to permit of close containment. Should any important percentage of sf writers get lulled into the self-importance of the worst kind of scholasticism, their places will be instantly taken by younger and frothier blood who will operate outside the ivy—the off-Broadway phenomenon. And another point: it is already too late for any segment of Academia to claim us—English departments, for example. Phil Klass was recently a guest lecturer at an Eastern college at the invitation of the History Department, and I got a munificent offer last summer to be a Distinguished Professor in Residence at a West Coast college—from their Sociology Department. Sf is what it is because it won't fit into anyone's prebuilt box, and that's not going to change. As for publishers, they're going to find out abruptly that there is something, after all, in that much-scorned zap-gun, and we got'em. When in doubt about

that permission request, get in touch with SFWA.

For all that, it is good, really good, after all these thorny years, to get such warm recognition from so many intelligent, articulate and perceptive people. We walk in the front door now. Did you know that at the time of Mendelssohn, musicians were expected to use the servants' entrance?

ALREADY the occasional drop into textbook country has turned into a trickle, and that stream will become a flood. Here's a chunky (544 pp) little tome from Fawcett (regretfully, no pun intended) called *Past, Present and Future Perfect*, subtitled "A Text Anthology of Speculative and Science Fiction", edited by Jack C. Wolf and Gregory Fitz Gerald, of State University, Brockport, N.Y.

It costs only 95¢ and is a damn good book. It has an unusual arrangement, starting with the present (Vonnegut, Graham Greene, Bradbury, B. F. Skinner and Asimov) and going back through public-domain country (Bierce, Wells, Mark Twain, Verne, Hawthorne, Mary Shelley) to Swift, Voltaire, Cyrano, Francis Bacon, Lucian and Plato. And lots more—thirty or so titles and excerpts. The Introduction explains how to use it in the classroom, but nobody has to tell you how to enjoy it. It really is a Best Buy.

JACK WILLIAMSON, as I mentioned above, was given the Pilgrim Award at the SFRA conference for his contributions over a long and distinguished career of scholarship in science fiction. The old planet-smasher was an established giant in the field when a teen-aged Sturgeon crept timidly through the warehouse stacks at Street and Smith for a first terrifying meeting with John Campbell. His titles fill me, to this day, with nostalgia and excitement: *Darker Than You Think*, *The Humanoids*, *The Legion of Space*, the two Seetee books, *The Reign of Wizardry*, *The Humanoids*, and dozens more. Meanwhile, as Professor of English at Eastern New Mexico University, he has earned his credentials in the academic world and, along with Robin Wilson, is the man most responsible for the institution of science fiction courses in colleges and universities (which, by the way, together with seminars and high-school courses, now number over four hundred!)

An excellent example of what he got the Pilgrim Award for is *H. G. Wells, Critic of Progress* (The Mirage Press, Baltimore, 164 pp, annotated and indexed, \$5.95.) and if you want one you'd better jump—the initial printing at this small, meticulous and devoted house was only 1500 copies. It is the most careful study of Wells I have ever seen, well thought-out and well written. The thrust of

Williamson's examination is that Wells, while dazzling his readers with his narrative deftness and the profligacy of his invention, was at the same time sternly pointing to nightmare. Before Orwell, before Zamiatin and Ayn Rand, Wells was warning us of the inevitable conflict between human freedom and mechanistically organized society. Williamson has made clear to me as never before that much of his work—more than I had ever realized and I was weaned on Wells—is cautionary. This book will be, I think, one of those cornerstone volumes in the structure of sf archives—clear, careful, reliable. And even if your interest doesn't run to the scholastic a run through this volume will greatly enhance a revisiting of Wells—and revisiting Wells is one of the nicest presents you can give yourself.

RÉGINALD BRETNOR is a scholar, a writer, a thinker, and very much a human being who, it is rumored, has actually met and talked with Ferdinand Feghoot. In 1953 he published a prestigious tome, *Modern Science Fiction, Its Meaning and its Future*, which became and remains an absolute necessity for any scholar of this literary phenomenon with which you and I are entangled. Now comes *Science Fiction, Today and Tomorrow* (Harper and Rowe, \$7.95, annotated and with bibliography) edited by Bretnor and

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calling itself a "discursive symposium." The best way to review this book is to give you the table of contents—you will then see clearly what it is, what it aims to do and where the muscle is. Divided into three sections, it goes like this:

"Science Fiction Today: The Role of Science Fiction," by Ben Bova. "The Publishing of Science Fiction," by Fred Pohl. "Science Fiction and the Visual Media," by George Zebrowski.

"Science Fiction, Science, and Modern Man: Science Fiction and a World in Crisis," by Frank Herbert. "Science Fiction, Morals and Religion," by Theodore Sturgeon. "Science Fiction and Man's Adaptation to Change," by Alan E. Nourse. "Science Fiction as the Imaginary Experiment," by Thomas N. Scortia. "Science Fiction in the Age of Space," by Reginald Bretnor.

"The Art and Science of Science Fiction: Science Fiction and the Mainstream," by James Gunn. "Science Fiction, New Trends and Old," by Alexei and Cory Panshin. "The Creation of Imaginary Worlds," by Poul Anderson. "The Creation of Imaginary Beings," by Hal Clement. "Romance and Glamor in Science Fiction," by Anne McCaffrey. "Plausibility in Science Fiction," by Gordon R. Dickson. "Science Fiction, Teaching and Criticism," by Jack Williamson.

The beauty of this book—and it is beautiful—is that the editor,

though he speaks his own piece and speaks it with force and clarity, made no demands on the rest of us to carry on his thesis—we had no inkling of his opinions before submitting our own. As a result you have here a true symposium, the unmodified expression, facet by facet, of conviction and impression concerning a complex whole. A whole it indeed is, complex indeed it is and, internally and externally, this book sets up many a conflict. I hope to see them fought out, too. Get this one—and/or see that your library acquires it.

DURING THE writing of the above I have moved from Penn State to and through Cornell and am now on the way to M.I.T. To reinforce what I wrote above about the acceptance of sf in the ivied halls (some of them actually are, too, as if they had never heard of a cliché!), it is interesting to point out that at Penn State I was the guest of the English Department; my sponsor at Cornell was the Astronomy Department; and at M.I.T. I go at the behest of the Artificial Intelligence Lab. I have mentioned that Phil Klass spoke at Delaware not long ago at the invitation of the History Department and that it was Sociology that made me the bid out West. I can only be pleased for sf. If Academe wants us in a cubby-hole, it's going to have to build one. *



CALENDARS

*He wanted to die, but couldn't
find the time—until too late!*

FRED SABERHAGEN

"IHAVE decided to die," Matthew Pandareus announced to his wife on their first evening together after their long vacation trip to Mars. Actually they had been back on Earth for a week, but Iris had begun an evening class in the history of paperweights and they had not had a real chance to talk since their return. Tonight they had just finished dinner tete-a-tete in their condominium apartment and he had strolled from the dining alcove to look out through the living

room's glass wall at the fantastic complexities of city lights extending below, around and above their middle-class, middle-level dwelling.

"Dear, you had a similar idea once before, thirty years ago." Iris's clinging gown swished faintly about her shapely legs as she followed to stand slightly behind him at the window. "Here, you forgot your brandy."

"Thank you. Closer on forty," he amended, turning to accept the glass from her hand. She turned away busily again as soon as she had passed it on and Pandareus had no very clear look at her face.

Iris switched on the fireplace with a wave of her hand and adjusted the mood of the background music to something a little more capricious. "Thirty," she said firmly, coming back to face him. The communication screen chimed then and she was off to answer it. Maintaining his stance in the living room Pandareus heard the short conversation—just some friends calling to welcome them back and ask how their voyage had been. Iris invited them over a week from Tuesday but they were busy that night. They would call again tomorrow or the next day and some date for a get-together would be worked out.

Now she was back in the living room again, wearing an expression he knew well, that of being firmly in the right though without animosity for those who weren't.

"Thirty," she said firmly. "It was right after you won the golf tournament." If it was time to argue, Iris was ready. Even studying her familiar face at close range, he could neither see nor remember which parts of it were synthetic skin and which her own, rejuvenated. There were no actual wrinkles on it anywhere, only the ghost of a line or two at the corners of the eyes. Even under close inspection she could be taken for a youthful twenty-eight. Her face and body were changing no more over the decades than were his golf or bowling score. He and Iris took long vacations from each other sometimes, but stayed married. He had found no one with whom he would rather live.

"It's nearly a hundred years since we were married," he recalled aloud and tasted his brandy. "Will you miss me very much?"

"I shall miss you, of course. Our relationship has been—very nearly perfect. But if it will make you happy, Matthew, go ahead and die. What is it? Boredom?"

"Not really." He indicated with the most minimal inclination of his head, which Iris instantly interpreted correctly, that they might go and seat themselves near the fire. Stretching out his legs there in front of his chair, Pandareus continued: "I think you know me well enough to believe that I am not trying to appear altruistic when I say that the time has come for me

to move on and make room for someone else."

"Of course, dearest."

"There are—what?—maybe eleven billion people on the planet now, and I think the number has hardly changed in the last few centuries. Fortunately starvation and disease are no longer problems. But it is a mixed blessing that practically no one dies unintentionally any more—how can new lives be lived if the old will not make way? When was the last time you saw a child? If every—"

"Speaking of children," Iris interrupted. "I don't mean to interrupt, but speaking of children, I hope you're not planning to have yourself terminated before the nineteenth."

"Of what? This month?" Automatically he looked for a calendar but could not see one. "Why?"

"Janet called." His previous wife. "I mean, she left a message while we were on vacation. Things have been so hectic I forgot to tell you. Your five-great grandson is making his bar mitzvah on that date, you're to be sure to attend."

"Bar mitzvah?" He rehearsed in his mind the names and generations comprising the straight unbranching line of his descendants. "I didn't think Liang was Jewish."

"Perhaps what Janet meant was his confirmation. At any rate—"

"—be sure to be there. Yes. Well, I had hoped to get away soon, having decided that it was the right

move to make. But Janet would really feel hurt—if I know her. Is there any way we could get together with her, maybe this week or next week, and discuss it face to face? Let's see, when—"

The communications screen chimed. Another set of friends, these just back from their own vacation.

THE NEXT day in his office on the upper floor of the duplex apartment he consulted his business calendar as soon as he could find the time. He discovered there was no use after all in trying to get in touch with Janet and see her, because even if the nineteenth were clear he had made commitments for important business meetings on the twenty-first and twenty-second. The firm in which he was a partner—dealers in antiques and folk art—was a small one and no great wealth hung on his decisions, but still an obligation was an obligation.

He switched his calendar to the following month. Studying the new pattern of appointments and memoranda displayed electronically on the glowing glass screen he at first found nothing in it that could not in good conscience be entrusted to his heirs and assigns. But wait, there was the antique furniture auction in Minneapolis. Of course, he and Iris had gone to a great deal of trouble to plan their vacation so he would be sure to be back in time for

that. The auction would be an ideal chance for him to train one or two of the younger people in the firm as buyers and he supposed he owed it to his partners to carry on that far.

Now, the month after that . . . of course, he was supposed to be in Europe for the round of trade shows. Again, the feeling that he would be letting others down if he bowed out. His wife might have a chance to go along. She also wanted to take part of the history study group that she was heading—all adults, of course—to Europe.

The next month, now, was all clear, except for trivia that he could disregard if he put his mind to it. He did put his mind to it. Then with his electronic stylus he wrote TERMINATION across that month on the calendar screen.

That evening, however, after helping Iris grade papers from her drama group before some friends came over, he paused suddenly with a foodbar halfway to his mouth, staring after his wife who had just vanished into the kitchen to start preparing the drinks and smokes and slices and dip. He had just been struck by the realization that the month he had tentatively chosen for his demise was the month of their hundredth anniversary. He had been deliberately keeping his calendar for that month clear of other major events, never dreaming that he could forget the big one.

Of course, they could have some

worthy celebration (was it on the fifteenth or the sixteenth?) and then he could terminate a few days later—but no. The scene would be very awkward. He could hear the questions now: *And what are you and your husband doing to celebrate, my dear?* And the good wishes: *May the next hundred years be as happy as the first.* No, any time that month would definitely be too close.

He would have to ask Iris how she felt about it. But there was the door and the bridge club was starting to arrive.

THE NEXT day Pandareus had this lawyer on the screen—they were locked in a time-consuming squabble with another art dealer over the correct attribution of an early-American painting—and he took the opportunity to discuss the legal aspects of dying.

The lawyer shook his head. "Haven't time to go into the whole thing right now. But it's not advisable for you to terminate at present. You'd do much better to wait until after the first of the year. The tax structure . . ." Pandareus had to cut the call short a minute later and hurry out to meet a potential big customer for lunch—so he managed to gain no very clear understanding of the tax structure. But he had become convinced that dying before the first of the year was financially inadvisable.

His first feeling was actually one of relief. This enforced delay would give him a breathing space in which to plan calmly for an exit that would have some dignity and perhaps even a touch of ceremony about it. But in his heart he knew that if you let projects slide long enough it was difficult to get back to them. Tomorrow, he promised himself, he would try to set up a termination date as soon after the first of the year as possible.

When he came down from the office that night—later than he had planned—he found Iris sprawled on the sofa, her shoes off.

She greeted him with a faint welcoming cry. "Ahh! Come rub my feet. I have had a day, Matthew, the story of which you will hardly be inclined to believe."

"That conference on endangered virus species?"

"That was yesterday. No, I went shopping this morning and this afternoon I had to go see that place where we were planning to store our boat next winter—remember, you were too busy to go?"

"Oh, yes." He sat on the sofa and began to rub a foot, squeezing the arch and instep with an expert touch. "Join me in a drink?"

"Gladly. And that was only the start. From the boat storage establishment I had to go—"

The communicator screen chimed. The caller was the computer service company, reminding them that their home terminals were to

be disconnected for a day's maintenance tomorrow.

AFTER dinner—and after Iris had gone wearily to bed—he dragged himself with proud determination up the stairs to his office again. Jaw outthrust, he set himself to decide firmly once and for all—insofar as such decision might be possible for one man aided by computer—the year, month and day upon which his life would end. He dropped into the chair before his desk with a sigh, brushed aside the printouts, accumulated during dinner, of *Antique Dealer's Bulletin* and five other periodicals he never had time to read. He punched for a combined full printout, on microtape, of his business and social calendars for the next twelve months. Next year's vacation, for example, had been arranged that far in advance. He and Iris were planning to go back to Indonesia, where they had not visited for sixty years. He took his tired mind firmly in hand. Forget about seeing Indonesia again.

While riding the tubeliner to Boston to attend a class reunion he finished other tasks in time to put the calendar microtape into a projector and begin work on the problem. Scanning back over the printout—chronologically from the scheduled vacation—setting his mind in as ruthless a frame as possible, he mentally pruned out an underbrush of minor appointments,

celebrations and entertainments planned from a sense of social duty. With his finger gliding on the projected image of the microtape he drew the surcease of eternity closer and ever closer to the hurtling moment of the present in which he dwelt.

"Would you care for a cocktail, sir?"

"No, thank you." He could have used one, but, nagged by the urgency of finishing before they got to Boston or probably not at all in the immediate future, he stuck with his work. Four months nearer to his present, moving anti-clockward from next year's vacation, his finger stopped, having run into the notable barrier of the annual banquet of the Old Marrieds' Club, for which he and Iris had standing reservations. Yes. That would set a time. Attend the banquet, dropping to a few old friends broad hints that he would not be back next year, delay a decent month and then bow out.

He straightened in his seat, turned off the projector and slid it back into its travel case. Settled, and they were just pulling into Boston. Once in a while things worked out just right.

ON THE day he got home from the reunion he began trying to get in touch with his physician. It was a few days before the doctor, repeatedly trying to return his call, did so at a moment when Pandareus

was available. Communication established, Pandareus promptly asked for and was given the name of another doctor, who had done terminations for several other people.

"There aren't any real specialists," his own doctor assured Pandareus. "Not in the field you want. Not enough people are having it done. How about a round of golf on Wednesday?"

"Can't," said Pandareus automatically and then consulted his calendar to make sure of why. "My father's coming into town that day. Maybe next week?"

The doctor looked off screen, evidently checking his own calendar, and frowned. "I'll try to call you back on it. You'll like Dr. James. One of the best men in the city."

"Thanks."

"Right."

Pandareus broke the connection and punched for Dr. James. A busy-signal. Well, he would try calling in the afternoon, before the time came to leave for the matinee.

Eventually he got through. "Dr. James's office," a receptionist of timeless prettiness told him.

"How do you do. I'd like to make an appointment to talk to the doctor, or talk to him right now if that's feasible. It's regarding my contemplated termination."

"I see, sir." Even before taking his name she asked, "And when is your preferred date for termination?"

He told her.

The receptionist was gently, exquisitely concerned. "I'm sorry, sir, but Dr. James will be on vacation that month."

BUT he persevered. Iris helped a blot. Seated with her in an aircab on his way at last to Dr. James's office to be terminated, he looked back on the months since his first firm decision to die and found the time, as viewed from his present angle, to be almost disconcertingly short.

Iris, riding beside him, was tired. She held an envelope containing some of the necessary papers, which they had only just managed to have signed in time, this very morning. "Oh, God, I'm dead," she murmured without thinking, and then looked over at him with alarm. "That was thoughtless of me, wasn't it?"

"Not at all, my dear. I won't be easily upset today. I feel happy. Completed. Fulfilled. A successful race run, a well-earned rest ahead, as it were. I want you to share my joy."

"I do, Matthew." But a little movement about the lips and throat, a tiny lift of the head, counterbalanced all the happy intonations she was putting into her voice. She was trying her best to act as if nothing were wrong, but after a little more than a hundred years he could infallibly tell when something

out of the ordinary was bothering her.

"Iris, what are your plans for the immediate future? I really haven't had time to discuss it with you."

"I'd like to get away for a while, Matthew. But I don't see how I can. My desensitization training group begins to meet next week. And there will be any number of loose ends to tidy up regarding your departure."

"Something more is bothering you. I can tell. Are you going to miss me too much, after all?"

"No, dear. If your absence affects me unduly I will just think of you as being on a long trip somewhere. And keep busy."

He pressed her hand. "But there is something. I insist on hearing what it is. It is most unfair to conceal things from me at this juncture."

"Matthew, I am not going to interfere with your happy departure. You have put so much time and effort into arranging it. Into making an achievement of your whole life. To—to close it properly, like a good poem."

"Something is definitely wrong and you are going to tell me what it is. Or I will stop the cab until you do."

Iris put down the bulky envelope and looked for a tissue. "You have nothing to regret. You have certainly been a good husband to me. You have kept almost every promise you ever made."

Aha. "What promise or promises have I failed to keep?"

"I have really nothing to complain of, Matthew."

The airborne cab glided to a soft waiting halt on the roof of the building housing Dr. James's office, but neither of the passengers got out at once. Pandareus had to spar through another verbal round or two with his wife before the reason for her unhappiness was clear.

"It was more than ninety years ago, Matthew, and I am sure you have forgotten it. But early in our marriage you did promise me that one day we would have a child."

HE CLOSED his eyes for a moment. Recollection of the promise had been coming back hazily, subconsciously, for some indeterminate time. Perhaps she had been dropping hints, trying to remind him. Anyway, there was no real surprise in hearing about the promise now and he could not honestly deny that it had been made. An obligation was an obligation and he had several times already put off dying for lesser ones than this. This was rather more important than a five-great-grandson's confirmation, he supposed.

"Iris, do you really think we have the right to bring a new life into the world?"

"Oh, Matthew, the world can certainly support one more, with hydrogen-fusion power and recla-

mation and all the rest. An equilibrium has been reached. It's not as if everyone were reproducing; I was reading just the other day how remarkable it is that so few exercise their legal rights to do so. The author was wondering why. And even if you did father a child once before—I've never had one. I don't think people are going to comment."

"I suppose not." He gave his wife the ghost of a smile, let his hand hang in the air for a moment and then signaled decisively for the cab to open its door. "Just let me step into James's office and let them know there's been a change of plan."

"Oh, Matthew! How loving of you to do this for me." She gripped his fingers and looked into his eyes intently. "You must understand, having a child will mean that your presence as a father is required for an indefinite period. The child will need you psychologically. It will mean years added to your life."

"I've been through it all before, remember?" He kissed her on the cheek. "The decision is made. I'll be right back."

But he was gone quite a long time, and she began to worry. Suppose he had—but no, there he was, looking a little happier than when he left, reaching briskly for the cab's door.

"James was pretty good about it all," Pandareus said, getting in. "But my change of mind meant

there were more forms to be filled out and we'll have to check back with city hall, the crematorium and the lawyers and—" He broke off to snap his fingers with irritation. "I meant to ask James if he could put us in touch with a good—what d'you call 'em?—obstetrician. Doctor who oversees gestation. And also one of those hospitals where they have an artificial womb. Those're supposed to be much improved these days."

Iris was relaxed now, content and comfortable. "Oh, no, Matthew. It was on television just the other day that artificial wombs are being discontinued once again. Even the new models had too many drawbacks."

Pandareus gave the cab its new orders and leaned back beside his wife as it took off and promptly became stuck in a traffic jam at the five-hundred-meter aerial level. "Then you'll just have to go through the whole nine months of inconvenience and the big disabling trauma at the end. I went through it all with Janet." He shook his head and smiled a little. "It's going to take some planning. Well, if it will make you happy, dear. When do you want to have the baby? Get it started, I mean?"

"Let's see." Then Iris's forehead almost creased with a pretty frown of light vexation. "Oh, dear. If we got baby started right now he'd be born just when our vacation trip is on. Let's see—" *

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WAVES

*Peace came to Earth—but
who was left to care?*

JACK B. KERR



JULY 4, 1987, and John Brinn is working overtime again. In spite of the Q-Systems Air Conditioning in the computer room he is uncomfortable. This assignment is plush by most standards, but being alone is getting to him. He has 3 x 10⁴ movies to choose from and the Automatic Menu System puts out anything from a hotdog to gourmet food—if it is in the AMS program. Sometimes he wishes that the menu included peanut butter and mayonnaise sandwiches, but what dietician would put those in a program? The game room has everything including the automatic playback pingpong table. He can now beat it on System Three and he can give it a good game on System Four. Sometimes, just for fun, he sets it all the way to System Ten to watch the balls spin at fantastic angles from the return. Some of them corkscrew all the way across the room. He never has been able to return even one shot.

The best relaxation of all is when the UN-7 computer is on Mode 9 and he can go outside to lie on the beach and listen to the surf. Those waves are really something. No programming them or their sequence. They are always the same but always different. Sometimes they seem to be talking to him, telling him that all this will change but the sea will remain.

For weeks now he has been getting erratic answers from the computer, and that worries him. When the United Nations decided to put UN-7 into a safe place they compared loca-

tions all over the globe and selected this island for its freedom from possible earthquakes, tidal waves, hurricanes and solar wind problems.

UN-5 had been in Geneva to be free from war, but the Spitzmark Revolution stirred up so much violence that it was damaged and repairs could not be completed for five weeks. That almost ruined everything because UN-5, although primitive, controlled the world supply and distribution of energy. UN-6 was hurried to completion on Sandoval in the Pacific, but an underwater volcano did that one in. Fortunately UN-6 predicted its own death early enough for the United Nations to find this rock and build UN-7.

John had interned on UN-5 and had been AMZ Director on UN-6. When Rolley retired after the installation and testing of UN-7, he was offered this post and jumped at the chance. Now in the middle of his four-year term he is getting deviant feedback from major terminals around the world.

He had requested Master Programmer Assistance from the UN days ago but could get no clear response. The UN outbound line tested—and still tests—alive from this end and none of the redundant UN circuits cut in on Auto 3. He had overridden the Master and introduced the R Circuit to UN, but still he received garbled data. He was sure that they must understand the difficulty, for with trouble at this level there would

be major conflicts in scheduling of airline travel, freight train and barge traffic. There would also be some disruption in the atmospheric distribution of electrical energy. When that happened the minor terminals, usually India and Malaysia, really griped to UN Master although they suffered less than the major terminals.

He had sent a General Program Problem Report to all terminals and had included a Major Malfunction and Time Ration Schedule. This had gone out two days ago and the Repeat-Acknowledge Response Analysis readout had indicated that it had been received in 137 of the 623 Specific Outlet Terminals. The local repeaters would pass this along to UN Master—he should have received inbound analysis yesterday. Since it did not arrive, there must be a major disturbance. UN-7 itself could not locate the trouble. Its internal analysis reported:

ALL CIRCUITS OK**MAJOR
TERMINALS NOT RESPONDING.

What was wrong? There were no major earthquakes, no atmospheric disturbances, only one war and at last Summary Analysis from UN to all terminals it was reported localized along the China-Russia border.

BOTH of these major terminals had Laser C and both were reported to have Earth Magnet Directional Guidance capability. If true, this meant either could direct the Laser C beam along any of Earth's

magnetic lines and wipe out anything in its path from magnetic pole to magnetic pole and from ground level to 75.374 meters above mean sea level. Power requirements to do this would be outrageous, but both China and the Russians *could* power the C beam for a total of 3° of magnetic line in increments of 0.2837°. Such use of power would require complete blackouts of energy within the nation and would be immediately noted by UN-7 and be condemned by the United Nations through United Nations Master. At that point, input energy to the offending terminals would be suspended, thus putting to an end the use of Laser C and any other major energy use.

The use of Laser C with EMDG would cause continuous destruction from magnetic pole to magnetic pole along the chosen line. This was the reason that the United Nations finally agreed to limit the manufacture of Laser C producing equipment. The use of this ultimate weapon could cause unconscionable destruction to nonwarring nations who happened to lie along the unlucky magnetic line.

But. Suppose each nation started to draw power from World Energy? Suppose some of the erratic readings had been because each nation started this withdrawal and their terminals spotted the other's withdrawal. Suppose each had wired around its outbound terminal trunk to hide this withdrawal, but by spying or superior programing found out about

the plans at the other terminal? Suppose each fired at the other's capital and Laser base, or one fired first and the other's Dead-Fire circuits fired back? Then the capital terminal would be wiped out. If the wire-arounds were in the Laser base buried deep in the ground below mean sea level and were untouched, they could continue to draw energy and fire again and again, cutting across 3° of the Earth's longitude per day per country. Firing on a programmed schedule until all of the other country was wiped out and/or until the other's Laser Surface Reflector was destroyed. If one laser were destroyed the other would (or could) continue to blast for as long as its program ran or until shutoff. If neither of these happened, it would run until it destroyed Earth's energy supply.

EXHAUSTED from worry, overwork and lack of sleep, John punches into his console a weary:

I wish I could get through to some people.

Swiftly, UN-7 tests this and replies at 47,000 words per minute, THERE ARE NO OTHER PEOPLE, SIR.

John goes to the window, half expecting to see the waves smile, but they just roll enigmatically one after the other, after the other, after—

John smiles, walks down to the beach, sits looking at the waves and starts talking to them as one friend to another and another, and another and—

PART II

INVERTED WORLD

CHRISTOPHER PRIEST



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WHAT HAS GONE BEFORE

Helward Mann of *Earth City* has reached manhood at the age of six hundred and fifty miles. His age is reckoned by the city's progress toward the Optimum—e.g. from the moment of Helward's birth *Earth City* has traveled six hundred and fifty miles toward this elusive goal, a process of which Helward knows little or nothing. His early years, spent in the creche with other city children, have been sheltered. His education has been *Earth* oriented and has given him little information about the planet the city now traverses.

Following elaborate rites welcoming him to adulthood—at which Helward elects to become an apprentice of the Future Surveyors' Guild and his engagement to a girl named Victoria Leroux is announced—Helward is permitted to see his first sunrise, actually his first glimpse of the outside. Assigned to serve his initial term as an apprentice with the Trackmen's Guild, he discovers that the city moves forward across the planet's surface on rails painstakingly laid ahead of it and as painstakingly removed once they have served their purpose (a) to prevent the city's sliding backward and (b) to be reused. He also learns that the city is fusion-powered and is the sole source of the good life on the planet—it alone has adequate (if tasteless and synthetic) food, clothing, medical and educational facilities. It uses these to barter for

workers and women to bear children—of which it has a shortage—from among primitive tribes of aliens or "tooks" en route. The women acquired by barter remain in the city long enough to bear a child to a city male, are then returned to their tribes.

The knowledge of how the city came to be is lost. It is, however, known that somehow it originated on *Earth* and that, in order to survive, it must be winched constantly toward the Optimum, which moves ahead of it. Instructions to this effect are contained in a document known as Destain's Directive, handed down from the city's founder in some dim antiquity.

Ideally the city should progress at the rate of one-tenth of a mile a day. This pace, however, is never maintained—there is uneven terrain to contend with; rivers and gorges must be bridged. The city has never been closer than three miles to the Optimum. This, however, is enough to keep it alive and functioning.

There is discontent both within and outside the city. Helward experiences both. Victoria, whom he has married, finds her life in urban confinement pointless. Helward has taken an apprentice's oath never to discuss the outside or the city's relationship to it with the uninitiated under penalty of death. To save his marriage, however, he breaks his vow in conversations with Victoria. He also is involved and injured in a riot of resentful "took" workers.

I SLEPT uncomfortably that night. Alone in the hut, I undressed carefully and looked at the damage. One side of my chest was a mass of bruises and there were several deep and painful scratches. The wound on my neck had stopped bleeding, but I washed it in warm water and put on it some ointment I found in Malchuskin's first-aid box. I discovered that in the fight one of my fingernails had been badly torn and my jaw ached when I tried to move it.

I thought again about returning to the city as Collings had suggested—it was, after all, only a matter of a few hundred yards away—but in the end thought better of it. I had no wish to draw attention to myself by appearing in the sterile, clean surroundings of the city looking as if I had just come out of a drunken brawl. The truth wasn't too far from that, but even so I thought I would lick my own wounds.

I tried to sleep, only managing to doze off for a few minutes at a time.

In the morning I was awake early and got up. I didn't wish to see Malchuskin before I had had a chance to clean myself up further. My whole body ached and I could move only slowly.

When he arrived, Malchuskin was in a bad mood.

"I heard," he said straight away. "Don't try to explain."

"I can't understand what happened."

"You were instrumental in starting a brawl."

"It was the militia—" I said weakly.

"Yes, and you ought to know by now that you keep the militia away from the tooks. They lost a few men some miles back and there are a few scores to settle. Any excuse and those stupid bastards go in and start clubbing."

"Collings was in trouble," I said. "Something had to be done quickly."

"All right, it wasn't entirely your fault. Collings says now that he could have handled it if you hadn't brought the militia in—but he also admits that he told you to fetch them."

"That's right."

"All right. But think, next time."

"What do we do now?" I said.

"We've no laborers."

"There are more coming today. The work will go slowly at first, because we'll have to train them for it. But the advantage is that the resentments won't start at once and they'll work harder. It's later, when they get time to add things up, that the trouble begins."

"But why do they resent us? Surely, we pay them for their services."

"Yes, but at our price. This is a poor region. The soil's bad and there's not much food. We pass by in our city, offer them what they

need—and they take it. But they get no long-term benefit, and I suppose we take more than we give.”

“We should give more.”

“Maybe.” Malchuskin looked indifferent. “That’s none of our concern. We work the track.”

We had to wait several hours for the new men to arrive. During that time Malchuskin and I went to the dormitory huts vacated by the workers and cleaned them out. The earlier occupants had been hustled away by the militiamen during the night, but they had been given time to collect their belongings. They had left a lot, though—mainly old and worn garments and scraps of food. Malchuskin warned me to keep an eye open for any kind of message that might have been left for the new men, but neither he nor I discovered anything of this sort.

Later we went outside and burned anything that had been left.

Around midday a man from the Barter guild came to us and said that the new laborers would be with us shortly. We were made a formal apology about what had happened the previous evening and told that in spite of much discussion it had been decided that the militia guard would be strengthened for the time being. Malchuskin protested, but the Barter guildsman could only agree—the decision had been taken against his own opinion.

I was in two minds about this. On the one hand I had no great admiration for the militiamen, but if

their presence could avert a repetition of the trouble I supposed it was necessary.

Malchuskin was beginning to fret about the delay. I presumed that this was because of the constant need to make up lost time, but when I mentioned this he was not as concerned about moving on as I’d thought.

“We’ll make time on the optimum on the next winching,” he said. “The delay last time was because of the ridge. That’s behind us now and the land’s fairly level ahead of us for the next few miles. I’m more concerned about the state of the track still left behind the city.”

“The militia will be protecting it,” I said.

“Yes, but they can’t stop it from buckling. That’s the main risk, the longer it’s left.”

“Why?”

Malchuskin looked at me sharply. “We’re a long way south of optimum. You know what that means?”

“No.”

“You haven’t been down past yet?”

“What does that mean?”

“A long way south of the city.”

“No, I haven’t.”

“Well, when you go down there you’ll find out what happens. In the meantime, take my word for it. The longer we leave the track laid south of the city, the more risk there is of it’s becoming unusable.”

THERE was still no sign of the hired men and Malchuskin left me and went over and spoke to two more Track guildsmen who had just come out of the city. In a while he returned.

"We'll wait another hour and if no one's come by then we'll borrow some men from one of the other guilds and start work. We can't wait any longer."

"Can you do that, use other guilds?"

"Hired men are a luxury, Helward," he said. "In the past the track-laying was done by guildsmen alone. Moving the city's the main priority and nothing stands in the way. If we had to we'd have everyone in the city out here laying track."

Suddenly he seemed to relax. He stretched out on the ground and closed his eyes. The sun was almost directly overhead and it seemed hotter than usual. I noticed that in the northwest hung a line of dark clouds and that the air felt stiller and more humid than normally.

A few minutes later Malchuskin sat up and looked northward. Coming toward us was a large band of men, led by five of the Barter guildsmen wearing their regalia of cloaks and colors.

"Good—now we start work," said Malchuskin.

In spite of his barely concealed relief there was much that had to be done before work could begin. The men had to be organized into four groups and an English-speaking

one appointed leader. Then bunks had to be allotted in the huts and possessions stowed away. Malchuskin looked optimistic throughout all this.

"They're looking hungry," he said. "Nothing like an empty belly to keep them working."

They were indeed a disheveled lot. They all had clothes of sorts but very few had any shoes and most wore their hair and beards long. Their eyes were sunk deep and several sported stomachs swollen from lack of proper food. I noticed that one or two walked with discomfort and one had a mutilated arm.

"Are they fit to work?" I asked Malchuskin quietly.

"Not properly. But a few days of

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work and a proper diet, and they'll be okay. A lot of tooks look like this when we first hire them."

I was shocked by the condition they were in and reflected that the local standard of living must be as bad as Malchuskin had made out. If this were so I could better understand the way resentment grew against the people of the city. I supposed that what the city gave in return for the laborers was a long way beyond what they were generally accustomed to and this gave them a glimpse of a better-fed, more comfortable life. As the city passed on they would have to revert to their former primitive existence, the city meanwhile having taken of the people's best.

More delays, as the men were given food, but Malchuskin was looking more optimistic than ever.

Finally we were ready to begin. The men formed themselves into four groups, each headed by a guildsman. We set off for the city, collected the four track bogies and headed south down the tracks in grand style. To each side of the rails the militiamen continued their guard and as we crossed the ridge we saw that down in the valley we had recently vacated there was a strong guard around the track buffers.

MALCHUSKIN stopped the bogie a short distance before the buffer and explained to the group leader—a middle-aged man named Juan—what had to be done. Juan

relayed this to the men and they nodded their understanding.

"They haven't the vaguest idea what they've got to do," Malchuskin said to me, chuckling. "But they'll pretend to understand."

The first task was to dismantle the buffer and move it up the tracks to a position just behind the city. Malchuskin and I had only just started to demonstrate how the buffer was dismantled when the sun went in abruptly and the temperature dropped.

Malchuskin glanced up at the sky. "We're in for a storm."

After this remark he paid no more attention to the weather and we continued with the work. A few minutes later we heard the first distant grumble of thunder and a short while after that the rain began to fall. The hired men looked up in alarm, but Malchuskin kept them going. Soon the storm was on top of us, the lightning flashing and the thunder cracking in a way that terrified me. We were all soon drenched, but the work continued. I heard the first complaints, but Malchuskin—through Juan—stilled them.

As we were taking the component parts of the buffer back up the track the storm cleared and the sun came out again. One of the men began to sing and soon the others joined in. Malchuskin looked happy. The day's work finished with erecting the buffer a few yards behind the city. The other crews also stopped work when they had built theirs.

The next day we started early. Malchuskin still looked happy but expressed his desire to get on with the work as fast as we could.

As we tried to take up the southernmost part of the track, I saw at first hand the cause of his worry. The tie-bars holding the rails to the sleepers had bent, and had to be wrenched away manually. Most became mangled beyond re-use. Too, the pressure of the tie-bars against the sleepers had split the wood in many places—though Malchuskin declared they could be used again—and many of the concrete foundations had cracked. Fortunately the rails themselves were still in a usable condition. Although Malchuskin said they had buckled slightly, he reckoned they could be straightened again without too much difficulty. He held a brief conference with the other Track guildsmen and it was decided to dispense with the use of the bogies for the moment and concentrate on digging up the track before any more of it became distorted. As it was still some two miles between where we were working and the city, each journey in the bogie took a long time and this decision made sense.

By the end of that day we had worked our way up the track to a point where the buckling effect was only beginning to be felt. Malchuskin and the others declared themselves satisfied. We loaded the bogies with as many of the rails and the sleepers as they would hold, and

then we called a halt again.

And so the track labors continued. By the time my ten-day period came to an end, the track-removal was well advanced. The hired men were working well as teams and already the new track to the north of the city was being laid. When I left Malchuskin he was as contented as I had ever seen him and I felt not in the least guilty about taking my two days' leave.

IX

VICTORIA was waiting for me in her room. By this time the bruises and scratches from the fracas had mostly healed and I had decided to say nothing of it. Word of the scuffle had evidently not reached her, for she did not ask me about it.

After leaving Malchuskin's hut in the morning I had walked to the city, enjoying that early part of the morning before it became too hot, and now I suggested to Victoria that we go up to the platform.

"I think it'll be locked at this time of day," she said. "I'll go see."

She was gone for a few minutes, then returned to confirm that this was so.

"I suppose it'll be open some time after midday," I said, thinking that by then the sun would have passed from the view of the platform.

"Take off your clothes," she said. "They need laundering again."

I started to undress but suddenly

Victoria came over to me and put her arms around me. We kissed, spontaneously realizing that we were pleased to see each other.

"You're putting on weight," she said as she slipped the shirt from my shoulders and ran her hand lightly across my chest.

"It's all the work I'm doing," I said and began to unbutton her clothes.

As a consequence of this change in our plans it wasn't until some time later that Victoria took my clothes away to be laundered, leaving me to enjoy the comforts of a proper bed.

After we had eaten some lunch we discovered that the way to the platform was now open and so we moved up there. This time we were not alone—two men from the Education administration were there before us. They recognized us both from our days in the creche and soon we were involved in a bland conversation about what we had been doing since coming of age. From Victoria's expression I gathered that she was as bored as I was with this, but neither of us liked to make a move to finish it.

In due course the men bade us farewell and returned to the interior of the city.

Victoria winked at me, then giggled. "God, I'm glad we're not still in the creche," she said.

"So am I. And I thought they were interesting when they were teaching us."

We sat down together on one of the seats and looked out across the landscape. From this part of the city it was not possible to see what was happening immediately at the side of the city, and even though I knew the track crews would be carting rails from the southern side to the north, it was not possible to see them.

"Helward—why does the city move?"

"I don't know. Not exactly, anyway."

She said, "I don't know what the guilds imagine we think about this. No one ever says anything about it, though one has only to come up here to see the city has moved. And yet if you ask anyone about it you're told it's not the concern of an administrator. Are we not supposed to ask questions?"

"They tell you nothing?"

"Nothing at all. A couple of days ago I came up here and discovered that the city had moved. A few days before that the platform had been locked for two days on end and word was passed around to secure loose property. But that was all."

"Okay," I said, "you tell me something. At the time the city was moving—were you aware of it?"

"No—or I think not. I didn't realize until afterward that it *had* moved. Thinking back, I don't recall anything unusual about the day it must have happened—but I've never left the city, so I suppose all the time I was growing up I must

have got used to whatever goes on. Does the city travel along a road?"

"A system of tracks."

"But why?"

"I shouldn't tell you."

"You promised you would. Anyway, I don't see what harm it would do to tell me how it moves—it's pretty clear it does."

The old dilemma again, but what she said made sense even though it was in conflict with the oath. Gradually I was coming to wonder more and more about the continued validity of the oath, even as I felt it eroding about me.

I said, "The city is moving toward something known as the optimum, which lies due north of the city. At the moment the city is about three and a half miles south of optimum."

"So it will stop soon?"

"No—and that's what isn't clear to me. Apparently, even if the city ever did reach optimum it couldn't stop as the optimum itself is always moving."

"Then what's the point of trying to reach it?"

I had no answer to that. I didn't know.

VICTORIA continued to ask questions and in the end I told her about the work on the tracks. I tried to keep my descriptions to the minimum, but it was difficult to know how far I was breaching the oath—in spirit if not in practice. I found that everything I said to her I qualified immediately afterward

with a reference to the oath.

Finally she said, "Look, don't say any more about this. You obviously don't want to."

"I'm just confused," I said. "I'm forbidden to talk, but you've made me see that I don't have any right to withhold from you what I know."

Victoria was silent for a minute or two.

"I don't know about you," she said eventually, "but in the last few days I've begun to develop a rather strong dislike for the guild system."

"You're not alone. I haven't heard many advocate it."

"Do you think it could be that those in charge of the guilds keep it in operation after it has outlived its original purpose? It seems to me that the system works by suppression of knowledge. I don't see what that achieves. It has made me very discontented and I'm sure I'm not alone."

"Perhaps I'll be like all the others when I become a full guildsman."

"I hope not," she said and laughed.

"There is one thing," I said. "Whenever I've asked Malchuskin—he's the man I'm working with—the sort of questions you've asked me, he says that I'll find out in due course. It's as if there were a good reason for the guilds and it relates in some way to the reason the city has to move. So far, all I've learned is the city does have to move—but that's all. When I'm out there it's all work and there's no

time to ask questions. But what is clear is that moving the city is the first priority."

"If you ever find out, will you tell me?"

I thought for a moment. "I don't see how I can promise that."

Victoria stood up abruptly and walked to the far side of the platform. She stood at the rail, looking out across the roof of the city building below at the countryside. I made no move to join her. It was an impossible situation. Already I had said too much—and in her demands that I say more Victoria was placing too great a burden on me. And yet I couldn't deny her.

After a few minutes she returned to the seat and sat down beside me.

"I've found out how we get married," she said.

"Another ceremony?"

"No, it's much simpler. We just have to sign a form and give a copy to each of our chiefs. I've got the forms downstairs—they're really very straightforward."

"So we could sign them right away."

"Yes." She looked at me seriously. "Do you want to?"

"Of course. Do you?"

"Yes."

"In spite of everything?"

"What do you mean?" she asked.

"In spite of the fact that you and I can't seem to talk without coming across something I either can't or shouldn't tell you—and the fact that you seem to blame me for it."

"Does it worry you?"

"A lot, yes."

"We could postpone getting married if you prefer."

"Would that solve anything?"

I was uncertain of what it would mean if Victoria and I broke off our engagement. Because the guilds had been instrumental in formally introducing us, what new breach of the system would it imply to say now that we did not intend to marry? On the other hand, with the formal introduction out of the way, no pressure had been put on us to marry immediately. As far as she and I were concerned the vexations of the limitations placed by the oath were the only differences between us. Without those, we seemed to be perfectly suited to each other.

"Let's leave it for a while," said Victoria.

Later in the day we returned to her room and the mood lightened considerably. We talked a lot, carefully skirting those topics of conversation we both knew caused problems—and by the time we went to bed our attitudes had changed. When we awoke in the morning we signed the forms and took them along to the guild leaders. Future Clausewitz was not in the city but I found another Future guildsman, and he accepted the form on Clausewitz's behalf. Everyone seemed to be pleased and later that day Victoria's mother spent a lot of time with us, telling us of what new freedoms and advantages we would enjoy.

Before I left the city to rejoin Malchuskin on the tracks I cleared what remained of my possessions from the creche and moved in officially with Victoria.

I was a married man and I was six hundred and fifty-two miles old.

X

FOR THE next few miles my life settled into a routine that was for the most part agreeable. During my visits to the city my life with Victoria was comfortable, happy and loving. She would tell me of her work and through her I came to learn how the day-to-day life of the city was administered. Sometimes she would ask me about my labors outside, but her early curiosity had either faded or she now thought better of asking me, for the resentments never again became as obvious as at first.

Outside, my apprenticeship progressed. The more work outside the city I participated in, the more I realized how much of a mutual effort the city's moving was.

At the end of my last mile with Malchuskin I was transferred on order of Clausewitz to the militia. This came as an unpleasant surprise as I had assumed that on completion of my training on the tracks I would start work with my own guild of Futures. However, I discovered that I was to be transferred to another first-order guild every three miles.

I was sorry to leave Malchuskin, for his simple application to the strenuous work on the tracks had an undeniable appeal. After we were past the ridge the terrain had been easier for track-laying, and as the new group of hired men continued to labor without untoward complaint his discontents had seemed to fade.

Before reporting to the militia I sought out Clausewitz. I did not wish to make too much of an issue, but I asked him for the reason behind the decision.

"It's standard practice, Mann," he said.

"But, sir, I thought by now I should be ready to enter my own guild."

He sat in a relaxed manner behind his desk, not in the least disturbed by my mild protest. I guessed that such a query was not unusual.

"We have to maintain a full militia. Sometimes it becomes necessary to draft other guildsmen to defend the city. If so, we do not have the time then to train them. Every first-order guildsman has served time in the militia—and so must you."

There was no arguing with that and so I became Crossbowman Second Class Mann for the next three miles.

I detested this period, fuming at the waste of time and the apparent insensitivity of the men I was forced to work with. I knew that I was only

making life difficult for myself, and so it was, for within a few hours I was probably the most unpopular recruit in the entire militia. My only relief was the presence of two other apprentices—one with the Barter guild and another with the Track guild—who seemed to share my outlook. They, however, had the fortunate ability to adapt to the new company and suffered less than I.

The quarters for the militia were in the area next to the stables at the very base of the city. These consisted of two large dormitories, and we were obliged to live, eat and sleep in conditions of intolerable overcrowding and filth. During the days we went through apparently endless periods of training. We made long marches across the countryside and were taught to fight unarmed, taught to swim rivers, taught to climb trees, taught to eat grass—any number of other futile activities. At the end of the three miles I had learned to shoot with a crossbow and how to defend myself when unarmed. I had made myself some bitter personal enemies and knew I should have to keep out of their way for some considerable time to come. I wrote it off to experience.

After this I was transferred to the Traction guild and at once I was much happier. Indeed, from this point to the end of my apprenticeship my life was pleasant and fruitful.

The men responsible for the traction of the city were quiet, hard-

working and intelligent. They moved without haste, but they saw that the work for which they were responsible was done—and done well.

My one previous experience of their work—when watching the city being winched—had not revealed to me the extent of their operations. Traction was not simply a question of moving the city but also involved its internal affairs.

IN THE center of the city, on the lowest level, I discovered, a large nuclear reactor was situated. It was from this that the city derived all its power, and the men who operated it were also responsible for the city's communication and sanitary systems. Many of the Traction guildsmen were water engineers and I learned that throughout the city there was a complicated system of pumping which ensured that almost every last drop of water was continually recycled. The food-synthesizer, I discovered to my horror, was based on a sewage-filtration device, and although it was operated and programed by administrators inside the city, it was in the Traction pumping room that the quantity (and in some respects the quality) of synthesized food was ultimately determined.

It was almost in the role of a secondary function that the reactor was used to power the winches.

There were six of these and they were built in a massive steel housing running east-west across the city's

base. Of the six, only five were used at any one time, the other being overhauled in rotation. The primary cause for concern with the winches was the bearings which, after many thousands of miles' use, were very worn. During the time I was with the Traction men there was a certain amount of debate on the subject of whether the winching should be carried out on four winches—thus allowing more time for servicing bearings—or should utilize all six winches, thus reducing wear. The consensus seemed to favor continuing with the present system, for no major decisions were taken.

One of the jobs I worked on with the Traction men was checking the cables. This, too, was a recurring task, for the cables were as old as the winches and breakages happened more frequently than was ideal, which was never. Each of the six cables used by the city had been repaired several times and parts of each cable were beginning to fray. Before each winching, therefore, every one of the five cables to be used had to be checked over foot by foot, cleaned and greased and bound where frays occurred.

Always—in the reactor room or during work outside on the cables—the talk was of catching up on the lost ground toward the optimum. How the winches might be improved, how new cables might be obtained. The entire guild seemed to be alive with ideas, but these were

not men fond of theories. Much of their work was concerned with mundane matters—for instance, while I was with the guild a new project was begun to construct an additional water reservoir in the city.

One pleasurable benefit of this aspect of my apprenticeship was that I was able to spend the nights with Victoria. Although I came back to the room at night hot and dirty from my work, I was for this short period enjoying the comforts of a domestic existence and the satisfactions of a worthwhile job.

One day, while working outside the city as one of the cables was being hauled mechanically out toward the distant stay emplacement, I asked the guildsman I was with about Gelman Jase.

"An old friend of mine, apprenticed to your guild. Do you know him?"

"About your age is he?"

"A bit older."

"We had a couple of apprentices a few miles back. Can't remember their names. I can check, if you like."

I was curious to see Jase. It had been a long time since I'd seen him and I wanted to compare notes with someone who was going through the same process as myself.

Later that day I was told that Jase had been one of the two apprentices the man had mentioned. I asked how I could contact him.

"He won't be around for a while."

"Where is he?" I said.

"He's left the city. Down past."

Too soon my time with the Traction guild ended and I was transferred to Barter for the next three miles. I greeted this news with mixed feelings, having witnessed one of their operations at first hand. To my surprise I learned I was to work with Barter Collings—and to my further surprise I discovered it was he who had requested I work with him.

"I heard you were joining the guild for three miles," he said. "Thought I'd show you our work isn't all dealing with rioting tooks."

Like the other guildsmen, Collings had a room in one of the forward towers of the city and here he showed me a long roll of paper with a detailed plan drawn on it.

"You needn't take too much notice of most of this. It's a map of the terrain ahead of us and it's compiled by the Futures." He showed me the symbols for mountains, rivers, valleys, steep gradients—all vital information for those who planned the route the city would take on its long slow journey toward optimum. "These black squares represent settlements. They're what we're concerned with. How many languages do you speak?"

I told him that I had never found languages easy when in the creche, only spoke French—and that haltingly.

"As well you're not planning to join our guild permanently," he

said. "Ability with languages is our stock in trade."

He told me that the local inhabitants spoke Spanish and that he and the other Barter guildsmen had had to learn the language from one of the books in the library as there were no people of Spanish descent in the city. They got by, but there were recurring difficulties with dialects.

Collings told me that of all the first-order guilds only the Track guild used hired labor regularly. Sometimes the Bridge-builders had to hire men for short periods, but by and large the major part of the Barters' work consisted of hiring manual laborers for the track work—and what Collings referred to as "transference."

"What is that?" I asked immediately.

Collings said, "It's what makes us so unpopular. The city looks for settlements where food is short, where poverty is widespread. Fortunately for the city this is a poor region, so we have a strong bargaining position. We can offer the locals food, technology to help their farming, medicines, electrical power—in return the men labor for us and we borrow their young women. They come to the city for a short while and perhaps they will give birth to new citizens."

"I've heard of this," I said, "I can't believe it happens."

"Why not?"

"Isn't it—immoral?"

"Is it immoral to want to keep the city peopled? Without fresh blood we would die out within a couple of generations. Most children born to people in the city are male."

I remembered the fight that had started. "But the women who transfer to the city are sometimes married, aren't they?"

"Yes. But they stay only to give birth to one child. After that they are free to leave."

"What happens to the child?"

"If it is a girl she stays in the city and is brought up in the creche. If it is a boy the mother may take it with her or may leave it in the city."

And then I understood the diffidence with which Victoria had spoken on this subject. My mother had come to the city from outside, and afterward had left. She had not taken me with her. I had been rejected. But there was no pain for me in this realization.

BACK OUTSIDE the city, I saw that the usual work on tracks and cables continued—if with a general shortage of labor—and that we were now only two miles from the site of the bridge. Speaking to one of the Traction guildsmen as I passed I learned that the city was only one and a half miles from optimum.

This information did not register until later, when I realized that the bridge itself must actually be to the *north* of optimum by about a half-mile.

There followed a long period of

delay. The bridge-building proceeded slowly. After the accident more stringent safety precautions were introduced and there were recurring checks by Leroux's men on the strength of the structure. As we worked, we learned that the track-laying operations at the city were going slowly—in one sense this suited us, as the bridge was a long way from being ready, but in another it was a cause for anxiety. Any time lost in the endless pursuit of the optimum was not good.

One day word passed around the site that the bridge itself was at the point of optimum. This news caused me to look anew at our surroundings, but there seemed to be nothing unusual about optimum. Once again, I wondered what its special significance was, but as the days passed and the optimum moved on in its arcane way northward it moved also from my thoughts.

With the resources of the city now being concentrated on the bridge, there was no chance of furthering my apprenticeship. Every ten days I was allowed my leave—as were all guildsmen on the site—but there was no thought now of my acquiring a general knowledge of the function of the various guilds. The bridge was the priority.

Other work continued, though. A few yards to the south of the bridge a cable-stay emplacement was built and the tracks were run up to it. In due course the city was winched along the tracks, and it

stood silently near the chasm waiting for the completion of the bridge.

The most difficult and demanding aspect of the bridge-building came with running the chains across the chasm from the south towers to the north, then suspending the rails from them. Time was passing and Leroux and the other guildsmen grew worried. I understood this was because, as the optimum moved slowly northward away from the bridge, the construction of the bridge itself would soon be laying itself open to the same problem that Malchuskin had shown me with the tracks to the south of the city—it was likely to buckle. Although the design of the bridge was intended to compensate for this to a certain extent, there was a definite limit to how long we could delay the crossing. Now work continued through the nights, lit by brilliant arc-lamps powered from within the city. Leave was suspended and a system of shifts devised.

As the slabs of the railway were laid, Malchuskin and the others put down tracks. Meanwhile, cable stays were being erected on the northern side, just beyond the elaborate ramps.

The city was so close by that we were able to sleep in our quarters inside it and I found a confusing difference between the extreme activity of the bridge site and the comparatively calm and normal atmosphere of everyday work inside

the city. My behavior evidently reflected this confusion, because for a while Victoria's questions about the work outside were renewed.

Soon, though, the bridge was ready. There was a further delay of a day while Leroux and the other Bridges guildsmen carried out a series of elaborate tests. Their expressions stayed concerned, even as they pronounced the bridge safe. During the hours of the night the city prepared for the winching.

As dawn was breaking, the Traction men signaled the clear—and with infinite stealth the city inched forward. I had taken a vantage point on one of the two suspension towers on the south side of the chasm and as the city's forward wheels moved slowly onto the tracks on the railway itself I felt a tremble of vibration through the tower as the chains took the strain. In the weak light of the rising sun I saw the suspension chains being tugged into a deeper curve by the weight, the rails clearly sagging under their immense burden. I looked at the Bridges guildsman nearest me, who was squatting on the tower a few yards away from me. His whole attention was on a loadmeter, which was connected to the overhead chains. No one watching the delicate operation moved or spoke, as if the slightest interruption could disturb the balance. The city moved on and soon the entire length of the bridge was bearing the weight of the city.

The silence was broken abruptly.

With a loud cracking noise that echoed around the rocky walls of the chasm one of the winch cables snapped and whiplashed back, slicing through a line of militiamen. A physical tremor ran through the structure of the bridge and from deep inside the city I heard the rising whine of the suddenly free winch, sharply cut off as the Traction man controlling the differential drive phased it out. Now on only four cables and moving visibly slower, the city continued on its way. On the northern side of the chasm, the broken cable lay snaked across the ground, curling over the bodies of five of the militiamen.

The most critical part of the crossing was done—the city moved between the two northern towers and began to slide slowly down the ramps toward the cable stays. Soon it stopped, but no one spoke. There was no sense of relief, no cry of celebration. On the far side of the chasm the bodies of the militiamen were being placed onto stretchers, ready to be taken into the city. The city itself was made safe for the moment, but there was much to be done. The bridge had caused an unavoidable delay and now the city was four and a half miles behind optimum. The tracks had to be taken up, the broken cable repaired. The suspension towers and chains had to be dismantled and saved for possible future use.

Soon the city would be winching again—ever onward, ever north-

ward, heading for the optimum that managed somehow to be always a few miles ahead.

THE BARTER guildsmen, like those of the Future, rode out across the countryside on horses. I had never learned to ride and so, when we left the city and headed north, I walked beside Collings. Later he showed me how to ride a horse, telling me that I would need to ride when I joined my father's guild. The technique came slowly. At first I was frightened of the animal and found it difficult to control. Gradually, as I realized the beast was docile and good-natured, my confidence grew and the horse—as if understanding this—responded better.

We did not travel far from the city. There were two settlements to the northeast and we visited both. We were greeted with some curiosity, but Collings's assessment was that neither settlement displayed any great need for the commodities the city could offer and he made no attempts to negotiate. He told me that the city's needs for labor were met for the moment and that there were enough transferred women to be going on with.

After the first journey away from the city—which took nine days and during which we lived and slept in the rough—I returned to the city with Collings, to hear the news that the Council of Navigators had given the go-ahead for a bridge to be built.

According to the interpretation Collings gave me two possible routes lay ahead for the city. One angled toward the northwest and, although avoiding a narrow chasm, led through hilly country with much broken rock. The other led across more level country but required a bridge to be built across the chasm. This latter course had been selected and all available labor was to be diverted temporarily to the Bridge-builders guild.

As the bridge was now the major priority, Malchuskin and another Track guildsman and their gangs were drafted. About half of the entire militia force was relieved of other duties to assist and several men from the Traction guild were to supervise the laying of the rail over the bridge. Ultimate responsibility for the design and structure of the bridge lay with the Bridge-builders guild and it requested fifty additional hired laborers from the Barter guild.

Collings and another Barter guildsman left the city at once and headed for the local settlements. Meanwhile I was taken north to the site of the bridge and was placed in the charge of the supervising guildsman, Bridges Leroux—Victoria's father.

When I saw the chasm I realized that it presented a major engineering problem. It was wide—about sixty yards across at the point selected for the bridge—and the chasm walls were crumbly and

broken. A fast-running stream lay at the bottom. In addition, the northern side of the chasm was some ten feet lower than the southern side, which meant that the track would have to be laid on a ramp for some distance after the chasm.

The Bridge-builders guild had decided that the bridge must be suspended. There was insufficient time to build an arch or cantilever structure and the other favored method—that of a timber scaffolding support in the chasm itself—was impracticable owing to the nature of the chasm.

Work started immediately on the building of four towers: two each to north and south of the chasm. These were apparently insubstantial affairs, built of tubular steel. During the construction one man fell from a tower and was killed. The work continued without delay. Shortly after this I was allowed to return to the city for one of my periods of leave and while I was there the city was winched forward. It was the first time I had been inside the city and aware that a winching operation was taking place. I was interested to note that there was no discernible sensation of movement, although there was a slight increase in background noise, presumably from the winch motors.

It was during this leave, too, that Victoria told me she was pregnant—an announcement that caused her mother much joy. I was delighted and for one of the few times in my

life I drank too much wine and made a fool of myself. No one seemed to mind.

BOOK TWO

XI

HELWARD MANN was riding. Standing in the stirrups, his head down against the side of the neck of the large tan mare, he rejoiced in the sensations of speed: the wind blowing back his hair, the crunch of hooves against the pebbly soil, the rippling of the beast's muscular loins, the ever-present anticipation of a stumble, a throw. He was riding south, away from the primitive settlement he had just left, down through the foothills and across the plain toward the city. As the city of Earth came into view behind a low rise of ground Helward slowed the horse to a canter and guided her in a broad turn, so that they headed back north. Soon the horse was walking and, as the day grew hotter, Helward dismounted and walked by her side.

He was thinking of Victoria, now many miles pregnant. She was looking healthy and beautiful and the Medical administrator had said the pregnancy was going well. Helward was allowed more time in the city now and he and Victoria spent many days together. It was fortunate that the city was once again moving across unbroken ground, because he knew that if an-

other bridge became necessary—or an emergency of any sort arose—his time with her would be curtailed drastically.

He was waiting now for his apprenticeship to end. He had worked hard and long with all the guilds save one—his own, the Futures guild. Barter Collins had told him the end of the apprenticeship was approaching and later the same day he was to see Future Clausewitz and formally discuss his progress thus far. The apprenticeship couldn't end soon enough for Helward. Though still an adolescent in his emotional outlook, by the ways of the city he was deemed an adult; he had indeed worked and learned for that status. Fully aware of the city's external priorities, if still not sure of their rationale, he was ready to be accorded his title of full guildsman. In the last few miles his body had grown muscular and lean and his skin had tanned to a deep healthy golden. He was no longer stiff after a day of labor and he welcomed the sensation of well-being that followed a difficult task well done. With most of the guildsmen he had worked under he had become respected and liked for his willingness to work hard and without question. And as his domestic life in the city settled down to a steady and loving relationship with Victoria he became known and accepted as a man with whom the city's security could be entrusted.

With Barter Collings in particu-

lar, Helward had established a good and amicable working partnership. When he had served his obligatory three-mile periods with each of the other guilds he had been allowed to choose a further period of five miles with any one of the guilds but his own and he had immediately asked to work with Collings. The barter work attracted him, for it enabled him to see something of the way of life of the local people.

The area through which the city was currently passing was high and barren and the soil was poor. Settlements were few and those that the guild approached were almost invariably clustered around one or another collection of ramshackle buildings. The squalor was terrible and disease was widespread. There appeared to be no kind of central administration, for each of the settlements had its own rituals of organization. Sometimes Collings's men were greeted with hostility and at other times the people hardly seemed to care.

The barter work was one largely of judgment, of assessing the particular outlook and needs of a chosen community and negotiating along those lines. Negotiations were fruitless in most cases—the one thing all settlements seemed to share was an abiding lethargy. When Collings could initiate any kind of interest, the needs became immediately apparent. By and large, the city could fulfill them. With its high degree of organization

and the technology available to it the city had, over the miles, accumulated a large stockpile of food-stuffs, medicines, chemicals and it had also learned by experience which of these were most required. So with offers of antibiotics, seeds, fertilizers, water-purifiers—even, in some cases, offers of assistance in repairing existing local implements—the Barter guildsmen could lay the groundwork for their own demands.

Collings had tried to teach Helward to speak Spanish, but he had little ability with languages. He picked up a handful of phrases, but contributed very little to the often lengthy periods of negotiation.

TERMS HAD been agreed upon with the settlement they had just left. Twenty men could be raised to work on the city tracks and another ten were promised from a smaller settlement some distance away. In addition, five women had either volunteered or been coerced—Helward was uncertain which and he did not question Collings—to move into the city. He and Collings were now returning to the city to obtain the promised supplies and prepare the various guilds for the new influx of temporary population. Collings had decided that all of the people should be medically examined, and this would place an additional burden on the Medical administrators.

Helward liked working to the

north of the city. This would soon be his territory for it was up here, beyond the optimum, that the Future guild did its work. He often saw Future guildsmen riding north, away into the distant territory where one day the city would have to travel. Once or twice he had seen his father and they had spoken briefly. Helward had hoped that with his experience as an apprentice the unease that dogged their relationship would vanish, but his father was apparently as uncomfortable as ever in his company. Helward suspected that there was no deep and subtle reason for this, because Collings had once been talking about the Future guild, and had mentioned Future Mann. "A difficult man to talk to," Collings had said. "Pleasant when you get to know him, but he keeps to himself."

After half an hour Helward remounted the horse and walked her back, retracing his last course. Some time later he came across Collings, who was resting in the shade of a large boulder. Helward joined him and they shared some of the food. As a gesture of goodwill, the leader of the settlement had given them a large slab of fresh cheese and they ate some of it, relishing the break from their more normal diet of processed, synthesized food.

"If they eat this," Helward said, "I can't see that they would have much use for our slop."

"Don't think they eat this all the

time. This was the only one they had. It was probably stolen from somewhere else. I saw no cattle."

"So why did they give it to us?"

"They need us."

SOME TIME later Helward and Collings continued on their way toward the city. Both men walked, leading the horses. Helward was at once looking forward to returning to the city and regretting that this period of his apprenticeship had ended. Realizing that this was probably the last time he would have with Collings, he felt the stirrings of an old and long-buried intention to talk about something that still caused him to fret from time to time—of all the men he had met outside the city Collings was the only one with whom he could discuss it. Even so, he turned over the problem in his mind for some time before finally deciding to raise it.

"You're unnaturally quiet," said Collings suddenly.

"I know—sorry. I'm thinking about becoming a guildsman. I'm not sure I'm ready."

"Why?"

"It's not easy to say. It's a vague doubt."

"Do you want to talk about it?"

"Yes. That is—can I?"

"I don't see why not."

"Well—some of the guildsmen won't agree," said Helward. "I was very confused when I first came outside the city and I learned then not to ask too many questions."

"What were the questions?"

Helward decided to abandon trying to justify himself.

"They dealt with two things—the optimum and the oath. I'm not sure about either of them."

"That's not surprising. I've worked with dozens of apprentices over the miles and they all worry about these."

"Can you tell me what I want to know?"

Collings shook his head. "Not about the optimum. That's for you to discover for yourself."

"But all I know about it is that it moves northward. Is it an arbitrary thing?"

"It's not arbitrary—but I can't talk about it. I promise you that you'll find out what you want to know very soon. But what's the problem with the oath?"

Helward was silent for a moment.

Then he said, "If you knew I'd broken it—if you knew at this moment—you'd kill me. Is that right?"

"In theory, yes."

"And in practice?"

"I'd worry about it for days, then probably talk to one of the other guildsmen and see what he advised. But you haven't broken it, have you?"

"I'm not sure."

"You'd better tell me about it."

"All right."

Helward started to talk about the questions Victoria had asked. He tried to confine his account to vague generalities. But as Collings stayed

silent, Helward found himself going into more and more detail. Soon he was recounting, almost word for word, everything he had told her.

When he had finished Collings said, "I don't think you've anything to worry about."

"Why not?"

"No harm has come of your saying anything to your wife."

THE CITY had come into view as they walked and they could see the customary signs of activity around the tracks.

"But it can't be as simple as that," said Helward. "The oath is very firm in the way it is worded and the penalty is hardly a light one."

"True—but the guildsmen who are alive today inherited it. The oath was passed to us and we pass it on. So will you in your turn. This isn't to say the guilds agree with it, but no one has yet come up with an alternative."

"So the guilds would like to dispense with it if possible?" said Helward.

Collings grinned at him. "That's not what I said. The history of the city goes back a long way. The founder was a man named Francis Destain and it is generally believed that he introduced the oath. From what we can understand of the records of the time such a regimen of secrecy was probably desirable. But today—well, things are a little more lax."

"But the oath continues."

"Yes, and I think it still has a function. There are many people in the city who may never know what goes on out here—and will never need to know. These are the people who are mainly concerned with the running of the city's services. They come into contact with the people from outside the city—the transferred women, for example—and if they were to speak too freely, perhaps the true nature of the city would become common knowledge with the people outside. We already have trouble with the locals, the tooks as the militia calls them. You see, the city's existence is a precarious one and has to be guarded at all costs."

"Are we in danger?"

"Not at the moment. But if there were any sabotage the danger would be immediate and great. We're unpopular as things stand. There's no profit in allowing that unpopularity be compounded with a local awareness of our vulnerability."

"So I can be more open with Victoria?"

"Use your judgment. She's Leroux's daughter, isn't she? Sensible girl. As long as she keeps to herself whatever you tell her I can't see any harm. But don't go talking to too many people."

"I won't," said Helward.

"And don't go talking about the optimum's moving. It doesn't."

Helward looked at him in surprise. "I was told it moved."

"You were misinformed. The optimum is stationary."

"Then why does the city never reach it?"

"It does, from time to time," said Collings. "But it can never stay there for long. The ground moves away southward from it."

XII

THE TRACKS extended about one mile to the north of the city. As Helward and Collings approached they saw one of the winch cables being hauled out toward the stay emplacements. Within a day or two the city would move forward again.

They led the horses over the tracks and walked down toward the city. Here on the north side was the entrance to the dark tunnel that ran beneath the city and gave the only official access to the interior.

Helward walked with Collings as far as the stables.

"Goodbye, Helward."

Helward took the proffered hand, and they shook warmly.

"You make that sound very final."

Collings shrugged in an off-hand way. "I shan't be seeing you for some time. Good luck, son."

"Where are you going?"

"I'm not going anywhere. But you are. Just take care—and make what you can of whatever happens."

Before Helward could reply the man had turned away and hurried into the stables. For a moment Hel-

ward was tempted to go after him, but an instinct told him that to do so would serve no purpose. Perhaps Collings had already told him more than he should.

With mixed feelings Helward continued down the tunnel to the elevator and waited for the car. When it arrived he went straight to the fourth level to look for Victoria. She was not in their room so he went down to the synthetics plant to find her. She was now more than eighteen miles pregnant, but was planning to continue working for as long as possible.

When she saw him she left her bench and they returned to the room together. There were still two hours to spare before Helward was to see Future Clausewitz and they passed the time with inconsequential conversation. Later, when the door was unlocked, they spent a few minutes together on the outside platform.

At the appointed time Helward went up to the seventh level and gained access to the guild block. He was now no stranger to this part of the city, but he visited it infrequently enough to feel still slightly in awe of the senior guildsmen and Navigators.

Clausewitz was waiting in the Future guild room and was alone. He greeted Helward cordially and offered him some wine.

From the Futures' room it was possible to see through a small window to the north of the city. Ahead,

Helward could see the rising ground he had been working in during the last few days.

"You've settled in well, Apprentice Mann."

"Thank you, sir."

"Do you feel ready to become a Future?"

"Yes, sir."

"Good—from the guild's point of view there's no reason why you shouldn't make it. You've earned yourself some good reports."

"Except for the militia."

"You needn't concern yourself with that. Military life doesn't suit everyone."

Helward felt a small relief. He had wondered if word of his bad showing in the militia had gotten back to his guild.

"The purpose of this interview," Clausewitz went on, "is to tell you what is to happen next. You still have a nominal three miles' apprenticeship to serve with our guild, but as far as I am concerned that will be a mere technicality. Before that, though, you are to leave the city. It's a part of your training. You will probably be away for some time."

"May I inquire for how long?" said Helward.

"It's difficult to say. Several miles, certainly. It might be as short as ten or fifteen or it might be as long as a hundred miles of time."

"But Victoria—"

"Yes, I understand she's expecting a child. When is it due?"

"In about nine miles," said Helward.

Clausewitz frowned. "I'm afraid you will have to be away at that time. There's really no alternative."

"But couldn't this trip be left until afterward?"

"I'm sorry, no. There's something you have to do. You know by now that from time to time the city is obliged to barter for the use of women from the outside. We keep these women for as short a time as possible, but even so they are rarely here for less than thirty miles. It is part of the bargain we strike that they are given safe conduct back to their settlements—and there are now three women who wish to leave. It is the custom of the city to use the apprentices to conduct them back, particularly as we now see this as an important part of the training process."

HELWARD HAD been forced by the very nature of his work to become more sure of himself. "Sir, my wife is expecting her first baby. I must be with her."

"It's out of the question."

"What if I refuse to go?"

"You will be shown a copy of the oath you swore and you will accept the punishment it prescribes."

Helward opened his mouth to reply, but hesitated. This was evidently not the time to debate the validity of the oath. Future Clausewitz was clearly restraining himself. On Helward's resistance to the in-

struction the guildsman's face had turned a deep pink and he had sat down, resting his hands palms down on the tabletop.

Instead of saying what was on his mind, Helward asked: "Sir, can I appeal to your reason?"

"You can appeal, but I cannot be reasonable. You swore in your oath to place the security of the city above all other matters. Your guild training is a matter of city security—and that's the end of it."

"But surely it could be delayed? As soon as the child is born, I could leave."

"No." Clausewitz turned and pulled forward a large sheet of paper, covered in part with a map and in part with several lists of figures. "These women must be returned to their settlements. In the nine miles or so of time it will take for your wife to deliver her baby, the settlements will be dangerously distant. They are already more than forty miles to the south of us. The plain fact is that you are the next apprentice on this schedule and it is you who must go."

"Is that your last word, sir?"

"Yes."

Helward put down his untouched glass of wine and walked toward the door.

"Helward, wait."

He paused at the door. "If I am to leave, I would like to see my wife."

"You have a few more days. You leave in half a mile's time."

Five days. It was almost no time.

"Well?" Helward no longer felt the need to display customary courtesies.

"Sit down, please." Reluctantly, Helward complied. "Don't think I'm inhuman, but ironically this expedition will reveal to you why some of the city's customs might seem to be inhuman. It is our way and it is forced on us. I understand your concern for Victoria, but you must go down past. There is no better way for you to understand the situation of the city. What lies there to the south of us is the reason for the oath, for the apparent barbarisms of our ways. You are an educated man, Helward. Do you know of any civilized culture in history that has bartered for women for the simple, uncomplicated reason of wanting one gestation from them? And then, when that gestation is completed, to return them?"

"No, sir," Helward paused. "Except—"

"Except primitive tribes of savages who raped and pillaged. Well, maybe we're a little better than that, but the principle's no less savage. Our barter is one-sided, for all that the contrary may seem to be. We propose the bargain, call our own terms, pay the price and move on our way. What I am telling you must be done. That you abandon your wife at a time when she needs you most is one small inhumanity that stems from a way of life that is itself inhuman."

Helward said, "Neither one

excuses the other in my mind."

"No—I'll grant you that. But you are bound by your oath. That oath stems from the causes of the major inhumanities and when you make your personal sacrifice you will understand better."

"Sir, the city should change its ways."

"But you will see that's impossible."

"By traveling down past?"

"Much will become clear. Not all." Clausewitz stood up. "Helward, you've been a good apprentice so far. I can see that in the miles to come you will continue to work hard and well for the city. You have a good and beautiful wife, a lot to live for. You aren't under threat of death, I promise you that. The penalty of the oath has never been invoked as far as I know, but I ask that this task that the city calls upon you to do be done—and done now. I have done it in my time—so has your father and so have all other guildsmen. Even now there are seven of your colleagues—all apprentices—down past. They have had to face similar personal hardships and not all have faced them willingly."

Helward stood, shook hands with Clausewitz and went in search of Victoria.

XIII

FIVE DAYS later Helward was ready to leave. That he would go had never been in serious doubt, but

his enforced absence had not been easy to explain to Victoria. Although at first she had been horrified by the news, her attitude had changed abruptly.

"You have to go, of course. Don't use me as an excuse."

"But what about the child?"

"I'll be all right," she said. "What could you do if you were here? Stand around and make everyone nervous? The doctors will look after me. This isn't the first pregnancy they've had to deal with."

"But—don't you want me to be there with you?" he said.

She had reached out and taken his hand in hers.

"Of course," she said. "But remember what you said. The oath isn't as rigid as you thought. I know you're going—and when you get back there'll be no mystery any more. And if what Barter Collings told you about the oath is true you'll be able to talk to me about what you see."

Helward had not been sure of what she meant by this. For some time he had been in the habit of confiding in her much of what he saw and did outside the city and Victoria listened with great interest. He no longer saw the harm in talking to her, though it worried him that she should continue to be so interested, particularly when so much of what he said was confined to what he considered to be routine details.

The result was that on his own personal score he no longer had a motive to try to avoid the journey down past, and indeed the idea excited him. He had heard so much of it, mostly by implication and half-reference, and now the time had come for him to venture that way himself. Jase was down past—perhaps they would meet. He wanted to see Jase again. So much had happened since they last saw each other. Would they even recognize each other?

Victoria did not come to see him leave. She was in the room when he left her, still in bed. During the night they had made love tenderly and gently, making half-hearted jokes about making it "last." She had clung to him when he kissed her goodbye and as he closed the door and went into the corridor he thought he heard her sobbing. He paused, debating whether to go back to her, but after a moment's hesitation he continued on his way. He saw no benefit in prolonging the situation.

Clausewitz was waiting for him in the Futures' room. In one corner a modest pile of equipment had been laid and spread out on the table was a large plan. Clausewitz's manner was different from that of the previous interview. As soon as Helward let himself into the room Clausewitz led him to the desk and without preamble explained what he was to do.

"This is a composite plan of the land to the south of the city. It's

based on a linear scale. You know what that means?"

Helward nodded.

"Good. One inch on this is roughly equivalent to one mile—but linearly. For reasons you'll discover, that won't help you later. Now, the city is here at the moment—and the settlement you have to find is here." Clausewitz pointed to a cluster of black spots at the other end of the plan. "As of today that's exactly forty-two miles from here. Once you leave the city you will find that distances are confusing and so are directions. In which case the best advice I can give you, as we give all our apprentices, is to follow the tracks of the city. When you go south they are the only contact you will have with the city, and the only way you will find your way back. The pits dug for the sleepers and the foundations should still show. Have you got that?"

"Yes sir."

"You are making this journey for one main reason. You must see that the women we entrust to you arrive safely at their village. When that has been done you return to the city without delay."

HELWARD WAS occupied with mental calculations. He knew how long it took him to walk a mile—just a few minutes. On a full day's march in hot weather he could hope to cover at least twelve miles—with the women to slow him up, half that. Six miles a day, and

that made seven days for the outward trip, three or four days for the return. At best, he could be back at the city within ten days—or one mile, as the city measured elapsed time. Suddenly he wondered why he had been told that he could not be back in time for the birth of his child. What had Clausewitz said the other day? That he would be gone ten or fifteen miles—perhaps even as long as a hundred! It didn't make sense.

"You'll need some way of measuring distance, so that you'll know when you're in the region of the settlement. Between the city and the settlement there are thirty-four old sites of our stay emplacements. They're marked on this plan as straight lines across the tracks. You shouldn't have much difficulty in locating them: although the tracks are built over the sites after they've been used, they leave quite distinct marks in the ground. Keep to the left outer track. That is, as you walk southward, the one farthest to the right. It is on this side of the track that the settlement is situated."

"Surely the women will recognize the area where they used to live?" said Helward.

"That's correct. Now—the equipment you will need. It's all here and I suggest you take it all. Don't think you can dispense with any of it, because we know what we're doing. Is that clear?"

Once again Helward confirmed that he understood. With Clause-

witz he went through the equipment. One pack contained nothing but dehydrated synthetic food and two large canteens of water. The other pack contained a tent and four sleeping bags. In addition, there was a length of stout rope, grappling irons, a pair of metal-studded boots—and a folded crossbow.

"Are there any questions, Helward?"

"I don't think so, sir."

"You're quite sure?"

Helward looked again at the pile of equipment. It was going to be a devil of a weight to carry unless he could share some of it with the women—and the sight of all that dried food had set his stomach lurching.

"Could I not live off the land, sir?" he said. "I find the synthetic food rather tasteless."

"I would advise you to eat *nothing* that is not in these packs. You can supplement your water ration if you have to, but make sure the source is running water. If you eat anything that grows locally once you're out of sight of the city, it will probably make you ill. If you don't believe me you can try. I did, when I was down past, and I was sick for two days. This isn't vague theory I'm giving you, it's advice based on hard experience."

"But we eat local foods in the city."

"And the city is near optimum. You're going a long way south of optimum."

"That changes the food, sir?"

"Yes. Is there anything else?"

"No sir."

"Good. Then there's someone who would like to see you before you go."

HE GESTURED toward an inner door and Helward walked to it. Beyond it was a smaller room and here his father was waiting for him.

Helward's first reaction was surprise, immediately followed by one of incredulity. He had seen his father last not more than ten days ago riding north—now, in that short period, it seemed to Helward that his father had aged suddenly and horribly. As he walked in his father stood up, balancing himself with an unsteady hand on the seat of his chair. He turned painfully to face Helward. His whole manner was marked with advanced age. He stood hunched—his clothes hung on him badly and the hand that came forward was trembling.

"Helward. How are you son?"

The manner had changed, too. There was no trace of the diffidence to which Helward had grown so accustomed.

"Father—how are you?"

"I'm fine, son. I've got to be taking it easy now, the doctor says. I've been north once too often." He sat down again, and instinctively Helward stepped forward and helped him into his seat. "They tell me you're going down past. Is that right?"

"Yes, father."

"You be careful, son. There's a lot down there will give you thought. Not like up future—that's my place."

Clausewitz had followed Helward and was now standing in the doorway.

"Helward, you ought to know that your father has been given an injection."

Helward turned away from his father.

"What do you mean?"

"He came back to the city last night, complaining of chest pains. It's been diagnosed as angina and he's been given a painkiller. He ought to be in bed."

"All right, I shan't be long."

Helward knelt on the floor beside the chair.

"Do you feel all right now, father?"

"I told you—I'm fine. Don't worry about me. How's Victoria?"

"She's getting on well."

"Good girl, Victoria."

"I'll tell her to visit you," said Helward. It was a terrible thing to see his father in this condition. They talked for a few more minutes, but soon the older man's attention began to wander. Eventually he closed his eyes and Helward stood up.

"I'll get one of the Medics," said Clausewitz and hurried out of the room. When he returned a few minutes later there were two of the Medical administrators with him. Gently, they picked the old man up

and carried him out to the corridor, where a wheeled trolley draped in white was waiting.

"Will he be all right?" Helward asked.

"He's being looked after, that's all I can say."

"He looks so old," said Helward, unthinkingly. Clausewitz himself was in advanced years, though in demonstrably better health than his father.

"An occupational hazard," said Clausewitz.

Helward glanced at him sharply, but found no further information forthcoming. Clausewitz picked up the metal-studded boots and pushed them toward Helward.

"Here—try these on," he said.

"My father—will you ask Victoria to visit him?"

"Don't worry about that. I'll deal with it."

XIV

HEWARD rode in the elevator to the second level, the packs and equipment loaded in beside him. When the car stopped he keyed the door-hold button and went along to the room to which Clausewitz had directed him. Four women and a man were waiting for him. As soon as he entered the room, Helward realized that only the man and one of the women were city administrators.

He was introduced to the other three, but they glanced at him

briefly and looked away. Their expressions revealed a suppressed hostility, deadened by an indifference that, until that moment, Helward himself had felt. Until entering the room he had given no thought as to who the women might be. He had not even speculated about their appearance. In fact, he recognized none of them, but hearing Clausewitz speak of them Helward had associated them in his mind with the women he had seen in the settlements while riding north with Barter Collings. Those women had been in general thin and pallid, their eyes sunk deep over prominent cheekbones, their arms scrawny and their chests flat. Dressed more often than not in ragged, filthy clothes, flies crawling over their faces, the women of the villages outside were pitiful wretches.

These three had none of these characteristics. They wore neat city clothes; their hair was clean and well cut; their flesh was round and full and their eyes were clear. To his barely concealed surprise Helward saw that they were very young indeed: scarcely older than himself. The people of the city spoke of the women who were bartered from outside as if they were mature—but these were nothing more than girls.

He knew he was staring at them, but they paid him no attention. What struck him hardest was the growing suspicion that these three had once been similar to the wretches he had seen in the villages

and that by being brought to the city they had been restored temporarily to an approximation of the health and beauty that might have been theirs had they not been born into poverty.

The woman administrator gave him a brief description of their background. Their names were Rosario, Caterina and Lucia. They spoke a little English. Each had been in the city for more than forty miles and each had given birth to a baby. There were two boys and a girl. Lucia—who had given birth to one of the boys—did not wish to keep the child and it was to stay in the city and be brought up in the creche. Rosario had chosen to keep her baby boy and it would be going with her back to the settlement. In Caterina's case there had been no choice—but in any event she had expressed indifference about losing her baby daughter.

The administrator explained that Rosario was to be given as much of the powdered milk as she asked for, because she was still suckling the baby. The other two would have the same food as himself.

Helward tried a friendly smile on the three girls, but they took no notice of him. When he tried to look at Rosario's baby, she turned her back on him and clutched it to her possessively.

There was nothing more to be told. They walked along the corridor toward the elevator, the three girls carrying their few belongings.

They crowded into the car and Helward keyed the button to take them to the lowest level.

The girls continued to ignore him and spoke to each other in their own language. When the car opened onto the dark passageway beneath the city, Helward struggled to remove the equipment. None of the girls helped him, but watched with amused expressions. With difficulty Helward picked up the various packs and staggered toward the southern exit.

The sun was dazzlingly bright. He put down the packs and glanced around.

The city had been winched since he had last been outside and now track crews were taking up the rails. The girls shaded their eyes and looked about them. It was probably their first sight of the outside since coming to the city.

The baby in Rosario's arms began to cry.

"Will you help me with this?" Helward asked, gesturing at the stack of food and equipment. The girls stared at him uncomprehendingly. "We ought to share the load."

They made no reply so he squatted down on the ground and opened the pack containing the food. He decided it would not be right to expect Rosario to carry any extra weight, so he divided the food into three packets, giving one to each of the other two and returning the rest to his pack. Lucia and Caterina reluctantly found room for

the food-packets in their holdalls. The length of rope was the most unwieldy part of the load and so Helward contrived to wind it into a tighter roll and stuff it into the pack. The grapple and pitons he managed to get into the pack containing the tent and the sleeping bags. Now his load was more manageable but not much lighter, and in spite of what Clausewitz had said Helward felt tempted to abandon most of it.

The baby was still crying and Rosario appeared unconcerned.

"Come on," he said, feeling irritated. He set off, walking south, parallel to the tracks, and in a moment they followed him. They stayed together, keeping a distance of a few yards between themselves and him.

HELWARD TRIED to set a good pace, but after an hour he realized that his calculations about how long the expedition would take had been overly optimistic. The three girls moved slowly, complaining loudly about the heat and the surface of the ground. It was true that the shoes they had been given were unsuited for walking over this rough terrain, but he was afflicted no less by the heat. In fact, in his uniform and weighed down by the bulk of the equipment, he was most unpleasantly warm.

They were still in sight of the city. The sun was only approaching its midday heat and the baby had not stopped crying. His sole relief so far

had been a few moments of conversation with Malchuskin. The trackman had been delighted to see him and was still full of complaints about his hired laborers. He wished Helward well in his expedition.

True to form, the girls had not waited for Helward and he had to cut short his visit with Malchuskin to hurry after them.

Now he decided to call a rest.

"Can't you stop his crying?" he asked Rosario, pointing to the baby.

The girl glared at him and sat down on the ground.

"Okay," she said. "I feed."

She stared at him defiantly and the other two girls waited at her side. Taking the point, Helward moved some distance away, keeping his back turned discreetly while she fed the baby.

Later he opened one of the water canteens and passed it around. The day was impossibly hot and his temper was no better than that of the girls. He took off the jacket of his uniform and laid it over the top of one of the packs and although this meant he felt the bite of the straps more deeply he stayed a little cooler.

He was impatient to move on. The baby had fallen asleep and two of the girls made a makeshift cot out of one of the sleeping bags, carrying it slung between them. Helward had to relieve them of their holdalls and although he was now overburdened with things to carry he gladly exchanged the extra discomfort for the welcome silence.

They walked for another half-hour and then he called another halt. By now he was drenched with sweat and it gave him little comfort to realize that the girls were no cooler.

He glanced up at the sun. It seemed to be almost directly overhead. He saw an outcropping of rock and went over to sit in its shade. The girls joined him, still complaining to each other in their own language. Helward regretted he had not taken more trouble to learn local speech—he could pick out one or two phrases, but only enough to discover that he was the butt of most of the complaints.

He opened a packet of dehydrated food and moistened it with water from the canteen. The resultant gray soup looked and tasted like sour porridge. Perversely, he derived pleasure from the girls' renewed complaints—here was one occasion when they were justified and he wasn't going to give them the satisfaction of letting them see he agreed.

The baby was still asleep, but fretting in the heat. Helward guessed that if they moved again it would wake up, so when the girls stretched out on the ground for a nap he made no effort to dissuade them.

While they were relaxing Helward stared back at the city, still clearly visible a couple of miles away. He realized that he had not been taking note of the marks left by the cable

stay emplacements. They would have passed only one so far—and now that he thought about it he saw what Clausewitz had meant by saying they left clearly distinguishable scars in the earth. He recalled that they had passed one a few minutes before they had halted. The marks left by the sleepers were shallow depressions some five feet in length by twelve inches across, but where the cable stays had been buried were deep pits, surrounded by upturned soil.

Mentally, he marked off the first one. Thirty-seven to go.

In spite of their slow progress he still saw no reason why he should not be back in the city in time for the birth of his own child. After he had seen the women back to their village he could make good progress on his own, however unpleasant the conditions.

HE DECIDED to allow the girls an hour for their rest and when he estimated that it had passed he went and stood over them.

Caterina opened her eyes and looked up at him.

"Come on," he said. "I want to move on."

"Is too hot."

"Is too bad," he said. "We're moving."

She stood up, stretching her body elaborately, then spoke to the other two. With similar reluctance they stood up and Rosario went to look at the baby. To Helward's dismay she

woke it—but fortunately the crying did not start again. Without delay, Helward gave back the two holdalls to Caterina and Lucia and picked up his own two packs.

Now the full heat of the sun came down on them and within a few seconds the benefit of the rest in the shade seemed to vanish. They had gone only a few yards when Rosario passed the baby to Lucia.

She went back to the rocks and disappeared behind them. Helward opened his mouth to ask where she had gone—but then realized. When she returned, Lucia went, and then Caterina. Helward felt his anger returning. They were deliberately delaying him. He felt a pressure in his own bladder, aggravated by realizing what the girls had been doing, but his anger and pride would not allow him to relieve himself. He decided to wait until later.

They walked on. The girls had now discarded the jackets that were common apparel inside the city and wore only the trousers and shirts. The thin material, damp with perspiration, adhered to their bodies and Helward noticed this with a despondent interest, reflecting that under different circumstances he might have found the phenomenon of considerable potential. As things were he registered this new development only so far as to appreciate that each of the girls was of fuller figure than Victoria—Rosario in particular had large, pendulous breasts with protuberant nipples.

Later, one of the girls must have noticed his occasional glance, for soon all three of them were walking with their jackets held over their chests. It made no difference to Helward—he just wanted to be rid of them.

"We have water?" Lucia asked, coming over to him.

He rummaged in the pack and gave her the canteen. She drank some, then moistened the palms of her hands and splashed water over her face and neck. Rosario and Caterina did likewise. The sight and sound of the water were too much for Helward and his bladder protested anew. He looked around. There was no cover, so he walked some yards away from the girls and relieved himself onto the soil. Behind him, he heard giggling.

When he returned, Caterina held out the canteen to him. He took it and raised it to his lips. Suddenly Caterina tipped it from below and the water splashed over his nose and eyes. The girls screamed with laughter as he spluttered and choked. The baby started crying again.

XV

THEY PASSED two more cable-stay emplacement marks before Helward decided to pitch camp for the night. He selected a site near a clump of trees two or three hundred yards from the scars made by the tracks. A small brook flowed nearby and after testing it for

purity—he had no guide other than his own palate—he declared it safe for drinking to conserve the supply in the canteens.

The tent was relatively simple to erect and although he started the work on his own the girls helped him finish off. As soon as it was up he laid the sleeping bags inside and Rosario went in to feed the baby.

When the baby had gone to sleep again, Lucia helped Helward reconstitute the synthetic food. The result this time was an orange-colored soup and it tasted no better than before. The sun set as they were eating. Helward had lit a small fire, but soon a wind blew up from the east, chilling them. Finally they were forced into the tent and the sleeping bags for warmth.

Helward tried to strike up a conversation with the girls, but either they did not answer or they giggled or made joking references to each other in Spanish, so he soon abandoned the idea. There were a few small candles in the pack of equipment and Helward lay in the light of these for an hour or two, wondering what possible benefit the city could derive from this pointless expedition of his.

He fell asleep at last, but was wakened twice in the night by the baby's crying. On one occasion he could just make out the shape of Rosario against the dim glow from outside, sitting up in her sleeping bag and suckling the infant.

They were awake early and set off

as soon as they could. Helward wasn't sure of what had happened, but the mood of the girls today was obviously different. As they walked Caterina and Lucia sang a little and at their first stop they tried again to spill water on him. He moved back to avoid them, but in doing so stumbled on the uneven ground—and spluttered and choked once more for their amusement. Only Rosario maintained a distance, pointedly ignoring him as Lucia and Caterina played up to him. He didn't enjoy being teased—for he could think of no way of replying—but he preferred it to the bad feeling of the day before.

As the morning progressed and the temperature rose, their mood became more careless. None of the three girls wore her jacket, and at the next stop Lucia undid the top two buttons of her shirt and Caterina opened hers all the way down the front, holding it in place with a large knot and so baring her midriff.

By now Helward could not mistake the effect they were having on him. As familiarity grew, the atmosphere eased further. Even Rosario did not turn her back on him the next time she suckled her baby.

Relief from the heat came with another patch of woodland, one Helward could remember helping to clear for the track-layers some miles before. They sat down in the shadows, waiting for the worst of the heat to pass.

They had now passed a total of five cable stay scars—thirty-three to go. Helward's mood of frustration at the slowness of their journey was easing. He saw that to travel faster would hardly have been possible even if he had been alone. The ground was too difficult, the sun too hot.

HE DECIDED to wait for two hours in the shadow of the trees. Rosario had moved some way away from him and was playing with her baby. Caterina and Lucia sat together under a tree. They had taken off their shoes and were talking quietly together. Helward closed his eyes for a few minutes, but soon became restless. He walked out of the trees on his own and went down to the scars left by the four lines of track. He looked left and right, north and south: the line ran straight and true, undulating slightly with the rise and fall of the ground, but always maintaining its direction.

Enjoying the comparative solitude he stood there for some time, wishing the weather would change and the sky cloud over, if only temporarily. He debated with himself for a while, trying to decide whether it might be better to rest during the days and travel at night—but considered on balance that to do so would be too risky.

He was about to turn back to the trees when he suddenly saw a movement about a mile to the south of

him. At once he was on his guard and dropped to the ground behind a tree stump. He waited.

In a moment he saw someone walking up the track toward him.

Helward remembered the crossbow folded inside his pack—but already it was too late to go back for it. There was a bush just a yard or two to the side of the stump and he wriggled over until he was behind it. Now better covered, he hoped he might not be seen.

The figure was still coming toward him and Helward saw to his surprise that the man was wearing the uniform of a guild apprentice. His first impulse was to come out of hiding, but he fought this back and stayed put.

When the man was less than fifty yards away, Helward recognized Torrold Pelham, a boy several miles older than himself who had left the creche a considerable time before.

Helward broke cover and stood up.

"Torrold!"

At once, Pelham was on his guard. He raised his crossbow and aimed it at Helward—then slowly lowered it.

"Torrold—it's me. Helward Mann."

"God, what are you doing here?"

They laughed together, realizing that they were both here for the same reason.

"You've grown up," said Pelham. "You were just a kid the last time I saw you."

"Have you been down past?" Helward asked.

"Yes." Pelham stared past him, northward up the track.

"Well?"

"It's not what I thought."

"What's there?"

"You're down past now. Can't you feel it?"

"Feel what?"

Pelham looked at him for a moment. "It's not so bad here. But you can feel it. Perhaps you can't yet recognize it. It builds up quickly farther south."

"What does? You're talking in riddles."

"No—it's impossible to explain."

Pelham glanced toward the north again. "Is the city near here?"

"A few miles. Not far."

"What happened to it? Have they found some way to make it move faster? I've only been gone a short time and the city's moved much farther than I thought it would."

"It's gone no faster than normal."

"There's a creek back there where a bridge had been built. When was that done?"

"About nine miles ago."

Pelham shook his head. "It doesn't make sense."

"You've lost your feel of time, that's all."

Pelham suddenly grinned. "I expect that's it. Listen, are you on your own?"

"No," said Helward. "I've got three girls with me."

"What are they like?"

"They're okay. A bit difficult at first, but we're getting to know each other now."

"Good-lookers are they?"

"Not bad. Come and see."

Helward led the way back through the trees until the girls came into view.

Pelham whistled. "Hey—they're all right. Have you—you know?"

"No."

They walked back toward the track.

Pelham said: "Are you going to?"

"I'm not sure."

"Take a tip, Helward—if you're going to, do it soon. Otherwise it'll be too late."

"What do you mean?"

"You'll see."

Pelham gave him a cheery grin, then continued on his way north.

THOUGHTS and intentions in the direction to which Pelham had been alluding were put out of Helward's mind almost at once. Rosario fed her baby before they set off and they had been walking only a few minutes when the child was violently sick.

Rosario hugged it to her, crooning quietly, but there was little anyone could do. Lucia stood by her, speaking sympathetically to her. Helward was worried, because if the child were seriously ill there was not much else they could do but return to the city. Soon, though, the baby stopped retching, and after a lusty

crying session it quieted down.

"Do you want to go on?" Helward asked Rosario.

She shrugged helplessly. "Si."

They walked on more slowly. The heat had not abated much, and several times Helward asked the girls if they wanted to stop. Each time they said no, but Helward detected that a subtle change had come over all four of them. It was as if the minor tragedy had drawn them together.

"We'll camp tonight," said Helward. "And rest all day tomorrow."

There was agreement to this and when Rosario fed the baby again a little later, this time it kept the milk down.

Just before nightfall they passed through countryside more hilly and rocky than that they had seen so far and suddenly came to the chasm that had caused so much trouble to the Bridge Builders. There was not much sign now of where the bridge had been, although the foundations of the suspension towers had left two large scars in the ground on this side.

Helward remembered a patch of level ground on the northern bank of the stream at the bottom of the chasm and he led the way down.

Rosario and Lucia fussed over the baby, while Caterina helped Helward erect the tent. Suddenly, while they were laying out the four sleeping bags inside, Caterina put a hand on his neck and kissed him lightly on the cheek.

He grinned at her. "What's that for?"

"You okay with Rosario."

Helward stayed put, thinking that the kiss might be repeated, but Caterina crawled backward from the tent and called the others.

The baby looked better and fell asleep when it was put into its makeshift cot. Rosario said nothing about the child, but Helward could tell she felt less worried.

The evening was much warmer than the night before and after they had eaten they stayed outside the tent for some time. Lucia was concerned with her feet, rubbing them continually, and the other girls seemed to be making much of this. She showed her feet to Helward, and he saw that large blisters had appeared on the outer sides of her toes. Feet were compared at great length, the other girls saying that theirs were sore too.

"Tomorrow," said Lucia, "no shoes."

That seemed to be an end to it.

Helward waited outside the tent as the girls crawled in. The previous night had been so cold that all of them had slept with their clothes on inside the sleeping bags, but tonight was warm and humid. A certain coyness in Helward made him resolve that he would keep his own clothes on and sleep on top of the bag, but a fast-developing interest in the girls led his thoughts to wilder fantasies about what they might do. After a few minutes he crawled into

the tent. The candles were alight.

Each of the three girls was inside her own bag, although Helward saw from the pile of clothes that they had undressed. He said nothing to them, but blew out the candles and undressed in the dark, stumbling and falling clumsily in the process. He lay down, only too aware of Caterina's body lying close beside him in the next sleeping bag. He stayed awake for a long time, trying to rid himself of a fierce manifestation of his arousal. Victoria seemed to be a long way away.

XVI

IT WAS daylight when he awoke and, after a futile attempt to get dressed while still in his sleeping bag, Helward scrambled out of the tent naked and dressed hurriedly outside. He lit the campfire and began to heat some water to make synthetic tea.

Here at the bottom of the chasm it was already warm and Helward wondered again whether they should move on or rest for a day as he had promised.

The water boiled and he sipped his tea. He heard movement from inside the tent. In a moment Caterina came out and walked past him toward the stream.

Helward stared after her—she was wearing only her shirt, unbuttoned all down the front and swinging open, and a pair of pants. When she reached the water she

turned and waved back at him.

"Come!" she called.

Helward needed no further bidding. He went down to her, feeling clumsy in his uniform and metal-studded boots.

"We swim?" she said and without waiting for an answer slipped off her shirt, stepped out of her pants and waded down into the water. Helward glanced back at the tent—nothing moved.

In a few seconds he had taken off his clothes and was splashing through the shallows toward her. She turned and faced him, grinning when she saw the response in him she had caused. She splashed water at him and turned away. Helward leaped at her, getting his arms around her—and together they fell sideways full-length into the water.

Caterina wriggled free of him and stood up. She skipped away from him through the shallows, throwing up a huge spray. Helward followed and caught her at the bank. Her face was serious. She raised her arms around his neck and pulled his face down to hers. They kissed for a few moments, then clambered out of the water and into the long grass growing on the bank. They lay down together and started to kiss again, more deeply.

By the time they had disentangled, gotten dressed and returned to the tent, Rosario and Lucia were eating a pile of yellow gruel. Neither of them said anything, but Helward saw Lucia smile at Caterina.

Half an hour later the baby was sick again—and as Rosario was holding it concernedly, she suddenly thrust the baby into Lucia's arms and rushed away. A few seconds later, she could be heard retching beside the stream.

Helward asked Caterina, "Do you feel okay?"

"Yes."

Helward sniffed the food they had been eating. It smelled normal—unappetizing, but not tainted. A few minutes later Lucia complained of intense stomach pains. She was very pale.

Caterina wandered away.

Helward was desperate. The only course open to him now seemed to be to return to the city. If their food had become foul, how would they survive the rest of the journey?

After a while Rosario returned to the campsite. She looked weak and pale and sat down on the ground in the shade. Lucia gave her some water from the canteen. Lucia herself looked white and was holding her stomach, and the baby continued to scream. Helward was not prepared to cope with a situation like this and hadn't the least idea of what to suggest.

He went in search of Caterina, who had seemed to be unaffected.

About a hundred yards down the chasm he came across her. She was walking back toward the campsite with an armful of apples which, she said, she had found growing wild. They looked red and ripe and

Helward tasted one. It was sweet and juicy—but then he remembered Clausewitz's warning. His reason told him Clausewitz was wrong, but reluctantly he gave it to Caterina and she ate the rest.

They baked one of the apples in the embers of the fire, and then pulped it. In tiny mouthfuls, they fed it to the baby. This time it kept the food down and made happy noises. Rosario was still too weak to attend to it, so Caterina laid it down on its cot and within minutes it was asleep.

Lucia was not sick, although her stomach continued to give her pain for most of the morning. Rosario recovered more quickly, and ate one of the apples.

Helward ate the rest of the yellow synthetic food—and it did not make him ill.

LATER in the day Helward climbed up to the top of the creek and walked along its northern side. Here, a few miles back in time, lives had been lost in the cause of getting the city to cross this chasm. The scene was still familiar to him, and although most of the equipment used by the city had been collected, those long days and nights spent racing to complete the bridge were still very vivid in his memory. He looked across to the south at the exact spot where the bridge had been built.

The gap did not look as wide as it had then, nor did the chasm look as

deep. Perhaps his excitement at the time had exaggerated his impression of the obstacle the chasm presented.

But no—surely the chasm *had* been wider?

He remembered that when the city had been crossing the bridge the railway itself had been at least sixty yards long. Now it seemed that at the point the bridge had been built the chasm was only about ten yards wide.

Helward stood and stared at the opposite edge for a long time, not understanding how this apparent contradiction could occur. Then an idea came to him.

The bridge had been built to quite exact engineering specifications—he had worked for many days on the building of the suspension towers and he knew that the two towers on each side of the chasm had been built an exact distance apart to allow the city to pass between them.

That distance was about one hundred and thirty feet or forty paces.

He went to the place where one of the northern towers had been built and walked over towards its twin. He counted fifty-eight paces.

He went back, tried again. This time he made it sixty paces.

He tried again, taking larger steps—fifty-five paces.

Standing on the edge of the chasm he stared down at the stream below. He could remember with great clarity the depth of the creek when the bridge was being built.

From where he now stood, the bottom of the chasm had seemed to be a terrifying depth below. Now it was an easy climb down to where he and the women had camped.

Another thought struck him and he strode north to where the ramp had brought the city down into contact with the soil again. The traces of the four tracks still showed clearly.

If the two towers were now apparently farther apart—what of the distance covered by the tracks?

From long hours of working with Malchuskin Helward knew intimately every detail of the tracks and their sleepers. The gauge of the tracks was three and a half feet, resting on sleepers five feet long. Looking now at the scars left in the ground by the sleepers, he saw that they were much bigger than this. He made a rough measurement and estimated that the marks were now at least seven feet long and shallower than they ought to be. But he knew that the sleepers he had used could not have made them—the city used standard-length sleepers, and the pits dug for them were always roughly the same size.

To make sure he checked several more scars and found they were all apparently two feet longer than they should have been.

And too close together. The sleepers were laid by the track crews at four feet intervals—not about eighteen inches apart, as these were.

Helward spent a few more

minutes making similar measurements, then scrambled down the chasm, waded across the stream (which now seemed to him to be narrower and shallower than it had been before) and climbed up to the southern edge.

Here, too, the measurements he made of the remains of the city's passage were in stark conflict with what they should have been.

Puzzled—and more than a little worried—he returned to the camp.

The girls were all looking healthier, but the baby had again been sick. The girls told him that they had been eating the apples Caterina had found. He cut one in half and inspected it closely. He could see no difference between it and any other apple he had ever eaten. Once again he was tempted to eat it, but instead passed it to Lucia.

An idea had suddenly occurred to him.

CLAUSEWITZ had warned him of eating local foods—presumably this was because he was of the city. Clausewitz had said it was all right to eat local foods when the city was near optimum, but that some miles to the south, it would not be safe. If he ate the city food, he would not be ill.

But the girls—they were not of the city. Perhaps it was his food that was making them ill. They could eat city food when they were near the optimum, but not now.

It made a kind of sense, but for one thing: the baby. Except for a few tiny mouthfuls of apple, it had had nothing but its mother's milk. Surely that could not harm it?

He went with Rosario to see the baby. It lay in its crib, its face red and tear-stained. It was not crying now, but it fretted weakly. Helward felt sorry for the tiny creature and wondered what he could do to help.

Outside the tent, Lucia and Caterina were in good spirits. They spoke to Helward as he emerged, but he walked on past them and went to sit beside the stream. He was still thinking about his new idea.

The only food had been its mother's milk . . . suppose the mother were different now, away from the optimum? She was not of the city, but the baby was. Could that make a difference? It did not make much sense—for surely the baby was of the mother's body—but it was a possibility.

He went back to the camp and made up some synthetic food and dried milk, being careful to use only water he had brought from the city. He gave it to Rosario and told her to try feeding the baby with it.

She resisted the idea at first, but then relented. The baby took the food and two hours later it was sleeping peacefully once more.

The day passed slowly. Down in the creek the air was still and warm and Helward's feeling of frustration returned. He saw now that if his suppositions were correct he could

no longer offer the girls any of the food. But with thirty or more miles to walk, they couldn't survive on apples alone.

Later he told them what was on his mind and suggested that for the moment they should eat very small amounts of his food and supplement this with whatever they could find locally. They seemed puzzled, but agreed to this.

The sweltering afternoon continued—and Helward's restlessness was transmitted to the girls. They became light-hearted and frisky and teased him about his bulky uniform. Caterina said she was going for another swim. Lucia said she would go, too. They stripped in front of him and then turned on him playfully and made him undress. They splashed about naked in the water for a long time, joined later by Rosario whose attitude toward him no longer seemed to be one of suspicion.

For the rest of the day they lay on the ground beside the tent, sunbathing.

That night Lucia took Helward's hand just as he was about to go into the tent and led him away from the campsite. She made love to him passionately, holding him tightly against her as if he were the only force of reality in her world.

IN THE morning Helward sensed a growing jealousy between Lucia and Caterina. He broke camp as early as possible.

He led them across the stream and up to the higher land to the south. Following the left outer track they continued their journey. The surrounding countryside was familiar to Helward—this was the region through which the city had been passing when he first worked outside. Some two miles to the south lay the ridge of high ground where he had witnessed his first winching.

They stopped for a rest halfway through the morning. Then Helward remembered that only two miles to the west of where they were was a small local settlement. It occurred to him that if food could be obtained there the problem of what the girls could eat would be solved. He suggested this to them.

The problem arose of who was to go. He felt he should go himself because the responsibility was his, but he would need one of the girls because she could speak the language. He did not wish to leave just one of the girls alone with the baby and he felt that if he went with either Caterina or Lucia, the one left behind would show more obviously what he had guessed was their shared jealousy over him. In the end he suggested that Rosario should go with him and the reception accorded to his decision assured him that he had made the right choice.

They set off in the approximate direction Helward remembered and found the village without difficulty. After a long conversation between Rosario and three of the local men,

they were given some dried meat and some green, raw vegetables. Everything went remarkably smoothly—Helward wondered what kind of persuasions she had used—and soon they were returning to the others.

Walking along a few yards behind Rosario, Helward noticed something about the girl he had not seen before.

She was built rather more heavily than the other two girls, and her arms and face were round and well-fleshed. The girl did have a slight tendency to plumpness, but it suddenly seemed to Helward that this was much more noticeable than before. With casual interest at first—and greater attention later—he saw that the fabric of her shirt was stretched tightly across her back. But her clothes had not been as tight as that before—they had been given to her in the city and had fitted her well. Then Helward noticed the trousers she was wearing; they were tight across her seat, but the legs scuffed against the ground as she walked. True, she was without shoes, but even so he did not remember her trouser legs' being as long as this before.

He caught up with her and walked at her side.

The shirt was tight across her chest, compressing her breasts—and the sleeves were too long. Also, the girl seemed to be far shorter than he remembered her from even the day before.

When they joined the others, Helward noticed that their clothes, too, were now fitting them badly. Caterina had her shirt knotted across her stomach as before, but Lucia's was buttoned and the tightness of the fit caused the fabric to part between the buttons.

HE TRIED to put the phenomenon out of his mind, but as they continued southward it seemed to become more and more obvious—and with comic results. Bending down to attend to the baby, Rosario split the seat of her trousers. One of Lucia's buttons popped off as she raised the canteen of water to her lips and Caterina tore the fabric of her shirt down both seams below her armpits.

A mile or so farther down the track, Lucia lost two more buttons. Her shirt was now open down most of its front and she knotted it as Caterina had done. All three girls had turned up the hems of their trousers and it was clear they were suffering considerable discomfort.

Helward called a halt in the lee of the ridge and set up camp. Once they had eaten the girls took off their tattered clothes and went into the tent. They teased Helward about his own clothes: were they not going to be torn up, too? He sat outside the tent on his own, not yet sleepy and not wishing to sit inside the tent with the girls.

The baby started to cry, and Rosario came out of the tent to get it

some food. Helward spoke to her, but she did not reply. He watched her as she added water to the dried milk, looked at her naked body in a wholly unsexual way. He had seen her naked only the day before and he was certain she had not looked as she now seemed. She had been almost as tall as he was—now she was squat and plump.

"Rosario, is Caterina still awake?"

She nodded wordlessly and went back into the tent. A few moments later Caterina came out and Helward stood up.

They faced each other in the light from the campfire. Caterina said nothing and Helward did not know what to say. She, too, had changed. A moment later Lucia came out to stand at Caterina's side.

Now he was certain. Some time during the day the girls' physical appearance had changed.

He looked at them both. Yesterday, naked beside the stream, their bodies had been long and lithe, their breasts round and full.

Now their arms and legs were shorter and more thickly built. Their shoulders and hips were broader, their breasts less round and more widely spaced. Their faces were rounder, their necks were shorter.

They came to him and stood before him. Lucia took the clasp of his trousers in her hands. Her lips were moist. From the entrance to the tent, Rosario watched.

IN THE morning Helward saw that the girls had changed even further during the course of the night. He estimated that none now stood taller than five feet. They also talked more quickly than before and the pitch of their voices was higher.

None of them could get into the clothes. Lucia tried, but could not get her legs into the trousers and split the sleeves of her shirt. When they left the camp, the girls' clothes were left, too, and they continued on their way naked.

Helward could not take his eyes off them. Every hour that passed seemed to reveal a more obvious change in them. Their legs were now so short that they could only take small steps and he was forced to dawdle so that he would not leave them behind. In addition, he noticed that as they walked their posture was assuming an angle—they appeared to be leaning backward.

They were also watching him and when they stopped for water an uncanny silence prevailed while the strange group passed the canteen from one to the other.

Around them there were outward signs of an inexplicable change in the scenery. The remains of the left outer track, which they still followed, were not indistinct. The last clear impression Helward had seen of one of the sleeper pits had been

more than forty feet in length and less than an inch in depth. The next set of tracks, the left inner, could not be seen—gradually the strip between the two had widened until it was over to the east by a half-mile or more.

The incidence of stay emplacements had increased. That morning they had already passed twelve and by Helward's figures there were only nine more to go.

But how would he recognize the girls' settlement? The natural scenery of the area was flat and uniform. They seemed to be resting on some hardened residue of an ancient lava-flow—no shade or shelter was in sight. He looked more closely at the ground. If he moved his figures through it firmly he could still make shallow indentations in the soil, but although the dirt was loose and sandy it felt thick and viscous to the touch.

The girls were now no more than three feet tall, and their bodies had distorted even further. Their feet were flat and wide, their legs broad and short, their torsos round and compressed. In this perception of them they became grotesquely ugly, and he found that in spite of his fascination with the physical changes coming over them the sound of their twittering voices was irritating him.

Only the baby had not changed. It was still, as far as Helward could see, much as it had always been. But in relation to its mother it was now disproportionately large and the

squat figure that was Rosario was regarding it with a kind of unspoken horror.

The baby was of the city.

Just as Helward himself had been born of a woman from outside, so was Rosario's baby a child of the city. Whatever transformation was coming over the three girls and the countryside from which they came, neither he nor the baby were affected by it.

Helward had no conception of what he should do, nor what he should make of what he saw.

He tried to think.

He felt a growing fright, for this was beyond any comprehension he had ever had of the natural order of things. The evidence was manifest—the rationale was without terms of reference.

He looked to the south and saw that not too far away stood a line of hills. From their shape and overall height he assumed they must be the foothills of some larger range—but then he noticed with a surge of alarm that the tops of the hills were white with snow. The sun was as hot as ever and the air as warm—logic demanded that any snow that could exist in this climate must be on the tops of very high mountains. And yet they were near enough—no more than a mile or two, he thought—for him to judge that at most they were only about five hundred feet in elevation.

He stood up—and suddenly fell.

As he hit the ground he found he

was rolling, as if down a steep slope, toward the south. He managed to stop himself and stood up unsteadily, bracing himself against a force that was pulling him southward. The effect was not new—he had been feeling a strange pressure all morning—but the fall had taken him by surprise and the force seemed now far stronger than before. Why had it not affected him until this moment? He thought back. That morning, with the other distractions, he realized he had indeed been aware of it—and had felt in the back of his mind that he had been walking down a long hill. But that was clearly nonsensical: the land was level as far as the eye could see. He stood by the group of girls, sampling the sensation.

It was not like the pressure of air, nor even like the pull of gravity on a slope. It was somewhere between the two: on level ground, without noticeable air movements, he felt as though he were being pushed or dragged south.

He took a few steps to the north, and realized he was bracing his legs as if ascending a hill—he turned to face south and, in conflict with the evidence of his eyes, he felt as though he were on a steep slope.

The girls were watching him curiously as he went back to them.

He saw that in those last few minutes their bodies had distorted still further.

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